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Table of Contents

<i>Assessment of the Youth Information Technology Education Program in Community Services</i> Dante V. Andal	pp. 1 - 14
<i>Infographics: Effects on Student Coding Skills and Conceptual Understanding in Biology</i> Ma. Cecilia M. Sacopla Rosanelia T. Yangco	pp.15 - 33
<i>Why Can't Mine Be International?: An Exploration of the Challenges of Internationalisation in the Public Universities in Ghana</i> Gifty Oforiwaa Gyamera	pp. 35 - 49
<i>Improving Student Learning by Growing a Teaching and Learning Culture in an Engineering School</i> L. C. Woollacott	pp. 51 - 63
<i>Revisit the Hospitality Law Curriculum</i> Hin Cheung Annie Ko Pimtong Tavitiyaman	pp. 65 - 78
<i>Applying Wearable Technology in English Adaptive Learning and Evaluating Learning Performance</i> Shu-Chun Ho Sheng-Wen Hsieh Shin-Shian Sung	pp. 79 - 88
<i>Factor Structure of Research Attitude among Graduate Students in Education</i> Janet Lynn S. Montemayor	pp. 89 - 102
<i>Development of the Ability in Creative Problem Solving of Early Childhood Education major Students by Using Group Process Activities</i> Siriporn Wongtakom Orathai Lao-alongkron Sutisana Totanayanon Wilaiwan Klientavorn Monta Ratanachan	pp. 103 - 112
<i>Achieving the Goal of Universalization of Education: A Situational Analysis of Chhattisgarh State, India</i> Sonal Mobar Roy	pp. 113 - 123

- Examining Effects of Two Computer Programming Learning Strategies: Self-Explanation versus Reading Questions and Answers*
Nancy Lee
Eunsook Hong pp. 125 - 147
- If You Write Back, Do It in English*
Ljiljana Markovic
Biljana Djoric Francuski pp. 149 - 159
- Guidelines on Enhancing Education Quality in Film and Digital Media for Private Universities*
Paninya Paksa pp. 161 - 174
- A Study on the Effectiveness of the Education Development Fund as a Post-Colonial Strategy to Control Non-Tertiary Education in Macao SAR*
U Kei Ho pp. 175 - 186
- An Italian Case: Students with a Foreign Background in IVET and the Access to Italian as Second Language*
Luisa Daniele pp. 187 - 198
- Japanese EFL Learners' Experiences with Written Corrective Feedback*
Nicholas Carr
Michiko Weinmann pp. 199 - 213
- What Students Want: A Study of Desirable Teacher Characteristics as Perceived by Their Students*
Yuwanuch Gulatee pp. 215 - 225
- The Design of An Ecosystem-Education Board Game Integrating Role-Play and Peer-Learning Mechanism and Its Evaluation of Learning Effectiveness and Flow*
Yi-Hui Lin
Huei-Tse Hou pp. 227 - 231
- High Scope Project Evaluation—The Impact of Congruency between Preferred and Actual Learning Environments on Tenth Graders' Science Literacy*
Chung-Yen Lin
Chun-Yen Chang
Ting-Kuang Yeh
Yu-Lin Chang pp. 233 - 239
- Lecturers' Competencies in Higher Education in Indonesia to Support the Quality of Graduates (An Educational Policy Analysis)*
Rachmie Sari Baso pp. 241 - 253

- Educational Policy and Management in the Equitable Allocation of School Resources: Budgetary Priorities and Funding in an American High School*
Nathaniel Edwards pp. 255 - 264
- Learning Critical Incidents and Socio-Cultural Differences: An Interactive Tool of Reorienting Students in a Multicultural Classroom*
Jim Duran pp. 265 - 281
- The Board Game Teaching with the Marine Science Educational Course on Students' Learning Motivation, Interest, and Achievement in Junior High School*
Shu-Wen Huang
Cheng-Chieh Chang pp. 283 - 296
- L2 Learners' Awareness through a Joint Student Exchange Program*
Sachiyo Nishikawa pp. 297 - 306
- On the Threshold: the Story of School Security Guards in Israel*
Raz Shpeizer pp. 307 - 313
- The Influence of Using Movement-based Game Integrating Guided-Discovery Teaching Model in Safety Education*
Yu-ching Chen pp. 315 - 322
- Oxbridge and the Nurturing of An 'Urban Gentry' - The Reform of Oxford and Cambridge in the Mid-Nineteenth Century*
Oliver E Hadingham pp. 323 - 334
- Challenges of Language Education in Post-Colonial Contexts*
Etienne Marceau pp. 335 - 343
- School Bullying: Its Influences on Academic Performance of the Basic Education Students*
Jomar Mendoza pp. 345 - 370
- The Relationship between Study habits, Attitudes, and Teaching Behavior and Achievement in Learning of Bachelor Level Students of Rajamangala University of Technology Lanna*
Parichat Buacharoen
Noparat Techapunratanakul pp. 371 - 377
- The Relationships between Learning Experiences, Psychological Capital, and Student Engagement in Taiwan's College Freshmen*
NaiHao Chang
Po-Lin Chen pp. 379 - 394

- Leadership and Civic Engagement of Myanmar Refugee Students in the United States: Experiences, Influences and Aspirations*
Ba Zan Lin pp. 395 - 407
- Entrepreneurship Education Questions and Good Practices in Hungary and Central and Eastern European Countries*
Csaba Bálint Illés
Anna Dunay
Saeed Nosratabadi pp. 409 - 422
- Disability and Employment – An Overview on the Role of Education and Educators*
Anna Dunay
Ambuj Sharma
Csaba Bálint Illés pp. 423 - 433
- A Study of Effects on Cognitive Load and Learning Achievement with Different Spatial Ability Using Synchronized Multi-Display*
Ya Tang Wang
Chang Hwa Wang
Yu-Hsuan Chen pp. 435 - 443
- Project-Based Approach by Using the Song-Lyric Method in Teaching English Writing for Students of Music Department*
Prima Dona Hapsari
FA. Wisnu Wirawan pp. 445 - 458
- A Gentleman's Education - The Birth of the Public School Ideal in Mid-Nineteenth Century*
Oliver E. Hadingham pp. 459 - 470
- Building People's Awareness on Using the Outdoor Advertising for Tourism Promotion Case Study: Tourism-Content Billboards in Yogyakarta, Indonesia*
FA. Wisnu Wirawan
Prima Dona Hapsari pp. 471 - 484
- Implementing Mother Tongue Based-Multilingual Education in an Area of Armed Conflict in Southern Philippines: A Case Study*
Ghea Ramona Tenchavez pp. 485 - 496
- Melodious Sound of Saw Sam Sai: Recording, Analytical Program Notes and Music Notation*
Pongsilp Arunrat pp. 497 - 508
- Classroom Climate: Implications to Students' Academic Achievement*
Alexander F. Suan pp. 509 - 516

- Applying Gamification in Vocational and Professional and Education and Training (VPET) Classroom to Engage Students' Learning*
Kit Man
Hing Yui pp. 517 - 526
- Student Assistantship Program: Advocating Inclusive Growth through Education*
Cynthia A. Abella pp. 527 - 536
- Practices for Public Relations Effectiveness in Education and Social Justice within and across Borders*
Maya Diah Nirwana pp. 537 - 547
- Minding the Gap: Confronting the Standardized Testing Mindset in Higher Education*
James J. Briganti pp. 549 - 553
- Relationship between Teacher Efficacy and Attitude toward Inclusive Education in Inclusive Public Elementary School*
Sulfani Nur Mawaddah
Tiza Meidrina
Frieda Maryam Mangunsong Siahaan
Pratiwi Widyasari pp. 555 - 567
- Impact of Posting Teaching Content Online in a French Course for Beginners*
Bernard Montoneri pp. 569 - 585

***Assessment of the Youth Information Technology Education Program in
Community Services***

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Abstract

The Youth Information Technology Education (YITE) is a community based program of ICTED Institute of Science and Technology in Lipa City, Batangas. The program objective is geared for the acquisition of basic knowledge, attitudes, values and skills that will serve to youth and adult as powerful tool in combating illiteracy in information technology education which open great opportunities for all individuals and groups in the community.

The desire of the researcher is to determine if there is a significant relationship between the perceived level of satisfaction on YITE program and perceived learning outcomes. Descriptive survey signifies the gathering data by providing the value of facts, and focusing attention on the most important things to be reported.

The researcher used questionnaire as research instrument in the gathering and collecting data on each item in the perceived level of assessment and learning outcomes of youth on information technology education program. The results of the study confirmed that the respondents are satisfied with the YITE Program (teachers' characteristics, strategies and program content) as well as with the Program's Learning Outcomes. Teachers' characteristics, teaching strategies and program content were found to be significant correlates and predictors of learning outcomes. The program should continuously address these aspects of the program. The knowledge and competence of the teachers as well as the content of the program should be regularly checked and upgraded through appropriate education and training.

Keywords: Information Technology IT Education, Learning Outcomes, Level of Satisfaction

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Introduction

The **Youth Information Technology Education (YITE)** is a community based program of ICT – ED Institute of Science and Technology in Lipa City, Batangas. This school project is implemented in the year 2009 as a community service program of ICT-ED Institute of Science and Technology. It aims to introduce the learners to the modern trends of information technology - based education; broaden their knowledge and skills in the use of computer software and other web based information; and promote the proper use of information technology in the field of IT education. The program objective is geared for the acquisition of basic knowledge, attitudes, values and skills that will serve as powerful tool of youth and adults in combating illiteracy. It would also open great career opportunities for all individuals in the community.

Time is indispensable for a change to take root in the educational development of learning. The pragmatic approach has been applied to formal basic education and yet computer literacy is not yet fully achieved due to multiple and complex delivery system of education in the country. It has been realized that this is not enough but in the long run it will make the people become productive and innovative in the future. Computer Literacy also prepares them to become globally competitive in the future.

The YITE is done as bridges of knowledge and skills for technological advancement which could create better linkage of opportunities towards a productive way of living of all the community youth and adults connected to the institutional program of ICT-ED Institute of Science and Technology.

Research Objectives

This study sought to identify the relationship between the respondents' perception of the level of assessment and learning outcome of YITE program. At the end of the study the researcher aims to:

1. Describe the profile of the respondents in terms of:
 - 1.1. age;
 - 1.2. gender; and
 - 1.3. educational attainment,
2. Analyze the respondents perceived level of satisfaction on YITE program in terms of:
 - 2.1. teacher characteristics;
 - 2.2. teaching strategies;, and
 - 2.3. content,
3. Evaluate the level of effectiveness on YITE learning outcomes.
4. Determine if there is a significant relationship between the respondents' level of satisfaction and their level of effectiveness of the learning outcomes.

Research Framing

In the assessment of the Youth on Information Technology Education Program, the researcher used the CIPP model designed by Stufflebeam and Shinkfield (1984) in order to achieve the objectives of program. Objectives are to evaluate the YITE strategies and methodologies that are appropriate to the stages and modes or designs program; design suitable techniques or principles of procedure to gather information or data relevant to the program; and utilize the data or information collected for the purpose of interpretation, analysis and description of the YITE to guide decision-making or judgment regarding the program.

CIPP model theory is used as a basis to measure the effectiveness of a program. The theoretical framework of this research also will be the basis towards method and measurement of this research.

Context, Input, Product, and Process (CIPP) Model

The model was adapted from the theoretical model designed by Stufflebeam and Shinkfield (1984), which focuses on improvement oriented evaluation. The aim is to make a decision towards one's course or an educational program. Briefly, through the CIPP model theory, evaluation of effectiveness of one course begins with an agency that operates the control system (course or program) then followed by evaluation in the first dimension that is evaluation of context by setting the curriculum's goals to achieve.

Next is the second dimension, evaluation of input focuses on using various strategies and methods of teaching and learning as the content of the courses. The third dimension is the evaluation of process that focused on the assessment of a process implementation and existing problems that can circumvent components of the program in the form of context and input. Finally the fourth dimension is evaluation of product that focused on outcomes achievement of one's course or program.

Stufflebeam (1984) stated that, the evaluation process can also be placed after assessment of a product because the process is significant to existing problems which could hinder the entire course including dimensions of context, input and product. In other words, the more problems exist, the harder to achieve the success of a course. The decision must be made in product and process dimensions whether to terminate, suspend, proceed or modify the course. If modification is needed for the course, the assessors are required to examine any weak dimension to fix the operation system.

Theoretical Framing

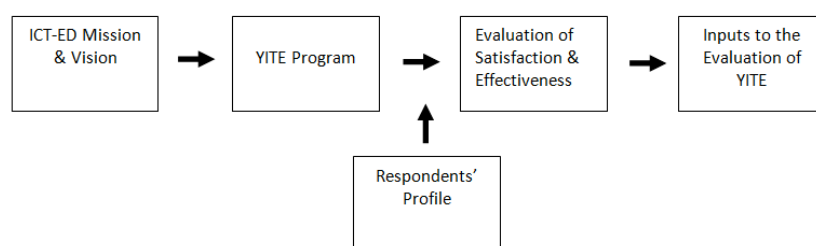


Figure 1. YITE Theoretical Framing using CIPP Model

The mission & vision of the school involves planning, implementing, and assessing a service-learning project aim to meet both the needs of service provider and stakeholders. Once the program is implemented, it is deemed necessary to undergo assessment to find out if the program is tracking its' objectives. This is the evaluation process where the recipient are determined satisfied and its program effectiveness throughout the whole period of the project.

The assessment or evaluation of the respondents focuses on the formative and summative evaluation of each respondent to determine the effectiveness and worth of an evaluation object (context, input, process and product). After the careful assessment of the program, the decision making would rely upon the results of assessment of the YITE program.

The perceived level of satisfaction measures the teachers characteristics; teaching strategies; and content of YITE program. These variables contain input and process measuring the formative evaluation. Input evaluation includes activities such as a description of the program inputs and resources, a prospective benefit/cost assessment, an evaluation of the proposed design of the program, and an examination of what alternative strategies and procedures for the program should be considered and recommended. This type of evaluation examines what the program plans on doing. It helps in making program structure decisions.

The process evaluation includes examining how a program is being implemented, monitoring how the program is performing, auditing the program to make sure it is following required legal and ethical guidelines, and identifying defects in the procedural design or in the implementation of the program. It is here that evaluators provide information about what is actually occurring in the program. In general, process evaluation helps in making implementing decisions.

However, the perceived learning outcomes stands for the product evaluation includes determining and examining the general and specific outcomes of the YITE program (i.e., which requires using impact or outcome assessment techniques), measuring anticipated outcomes, attempting to identify unanticipated outcomes, assessing the merit of the program, conducting a display benefit/cost assessment (to establish the actual worth or value of the program), and/or conducting a cost effectiveness assessment (to determine if the program is cost effective compared to other similar programs). Product evaluation is very helpful in making summative evaluation decisions of YITE learners are the focus of the teaching/learning process in the statements of goals and objectives of YITE assessment.

Research Methodology

The descriptive method of research was employed. This was designed to gather information about present existing conditions. In line with it Sevilla (1999) pointed out that descriptive survey or research presents facts concerning the nature and status of anything, a group of persons, a number of objects, a set of conditions, a class of events a system of thought or any kind of phenomena which one may wish to conduct a study.

The desire of the researcher is to determine if there is a significant relationship between the respondents' profile and the perceived level of assessment on YITE program; the respondents' profile and the perceived learning outcomes; and the perceived level of assessment on YITE program and perceived learning outcomes.

The researcher devised questionnaires for the recipient (YITE participants) of the program. Descriptive survey signifies the gathering data by providing the value of facts, and focusing attention on the most important things to be reported. The researcher used questionnaire as research instrument in the gathering and collecting data on each item in the perceived level of assessment and learning outcomes of youth on information technology education program.

Sources of Data

The sources of data are the respondents who are given survey questionnaire. The respondents are identified as learners (recipient) of the youth on information technology education in community service. The survey questionnaire used as the research tool in the conduct of research, and this questionnaire is composed of three parts. The first part of the questionnaire contained the profile of the respondents; the second part is the assessment of teacher characteristics; teaching strategies and program content; and the last part is the learning outcomes of the learners. The designed questionnaire is semi structured. The Part III, Student Learning Outcomes is adapted from Deborah Teramis Christian, Lasa Information Systems Team, "ICT Training Need Analysis" used by the researcher to gauge the level of assessment on the learning outcomes of the respondents.

Frequency and Percentage

The frequency and percentage distribution of the respondents profile are presented to describe the respondents and educational attainment. Simple frequency count tallies, the number of times that the score will achieve. This is used to determine the proportion of frequency of respondent profile. Percentage is the numerical analysis to describe or compose the magnitudes of given data. It is used to summarize data on the respondent profile.

Mean and Weighted Mean

Simple mean is used to determine the respondents' perceived level of assessment and learning outcomes. Weighted mean is a statistical tool where there is a variation of relative contribution of individual data values to the mean and is used to describe the average of the result of each item.

Four – Point Scale

The Four – Point scale is used in assessing the respondents' level of satisfaction for both the YITE program and YITE Learning outcomes. The weighted mean for the level of satisfaction of the YITE program was interpreted using the corresponding equivalents given below:

Scale	Weighted Mean	Interpretation
4	3.50 - 4.00	Very Satisfied
3	2.50 - 3.49	Moderately Satisfied
2	1.50 - 2.49	Slightly Satisfied
1	1.00 – 1.49	Not Satisfied

The weighted mean for the level of effectiveness of the learning outcomes was interpreted using the corresponding equivalents given below:

Scale	Weighted Mean	Interpretation
4	3.50 - 4.00	Very Effective
3	2.50 - 3.49	Moderately Effective
2	1.50 - 2.49	Fairly Effective
1	1.00 – 1.49	Not Effective

Pearson Product Moment Correlation

Correlation Analysis is to be done in Pearson Product Moment Correlation coefficient to determine the presence of significant relationship between the perceived level of satisfaction and level of learning outcomes.

Data Analysis and Interpretation of Research

Profile of the Trainees

Table 1 shows the frequency distribution of the respondents according to the age, gender and educational attainment of the learners. Most of the respondents are minor age with 41 learners, or 97.62% of the total number of respondents, while there is only one respondent (2.38%) from the out of school youth. The frequency distribution of the respondents according to gender of the learners. The majority of the respondents are female with 31 learners, or 73.81%, while male learners are 11 or 26.19% of the total number of respondents. The frequency distribution of the respondents according to educational attainment. It indicates that majority of the respondents finished secondary, with 39 respondents, or 92.86% of the population. The minority, at 7.14% that three respondents are completed elementary level.

Table1. Frequency distribution of the respondents' profile according to age, gender and educational attainment.

Age	Frequency	Percentage (%)
14-17	41	97.62
18-21	1	02.38
Total	42	100

Gender	Frequency	Percentage
Male	11	26.19
Female	31	73.81
Total	42	100

Educational Attainment	Frequency	Percentage
Elementary	3	07.14
Secondary	39	92.86
Total	42	100

Perceived Level of Satisfaction on YITE Program

The content of the modules are concentrated on basic computer literacy program and computer application. Module 1 and 2 are computer familiarization and terminologies (General Windows Skills and Printers & Peripherals) where Module 3 to Module 5 focuses on computer application such as Word processing, Spreadsheet, and Presentations. The Module 6 is the application of Internet and On-line Activities.

Table shows the respondents' perception on level of satisfaction in terms of teaching characteristics, teaching strategies and content in Module 1 indicated that they found as "Very Satisfactory". Highest mean rating of 3.63 was given in the Teaching Characteristics. The result of perceived level of satisfaction for Module 2 to Module 6 indicated that they found as moderately satisfied varies according to the level of complexity of the module.

Service-learning is a complex approach to teaching and learning; it needs and deserves approaches to assessment, evaluation, and reporting that are capable of capturing that complexity (Eyler & Giles, 1999; Karayan & Gathercoal, 2005; Mabry, 1998; Moore, 1999; Pritchard, 2002; Steinke & Buresh, 2002; Troppe, 1995).

The assessment result of the component of YITE program on teacher's characteristics, teaching strategies and content; the perceived level of assessment indicated that they have found the teacher's characteristics, teaching strategies and content were given overall rating of mean moderately satisfied. The need of rigorous and authentic assessment of service learning outcomes has been increasingly recognized and many challenges in assessing service learning (Butin 2003; Gelmon, 2000a; Holland, 2001).

Table2. YITE level of satisfaction in terms of Teaching Characteristics, Teaching Strategies, and Content (Component of YITE Program)

Module	Teacher's Characteristics		Teaching Strategies		Content	
	M	VI	M	VI	M	VI
Module 1	3.63	VS	3.52	VS	3.58	VS
Module 2	3.46	VS	3.43	VS	3.43	VS
Module 3	3.32	MS	3.35	MS	3.39	MS
Module 4	3.27	MS	3.23	MS	3.28	MS
Module 5	3.35	MS	3.35	MS	3.42	MS
Module 6	3.32	MS	3.36	MS	3.24	MS
TOTAL	3.39	MS	3.37	MS	3.39	MS

Level of effectiveness on YITE learning outcomes

Table shows the level of effectiveness on YITE learning outcomes in Module 1 indicated that they found as “Very Effective”. Highest mean rating of 3.50 was given in the General Windows Skills. Module2 to Module 6 were rated “Moderately Effective” because of the complexity of learners on the different level.

Allen (2003) stated that assessment is a continuous improvement process. In order to improve, you need to know where you are today and where you would like to go. This requires a clear articulation of the programs mission (purpose), vision (where you would like to go), goals (steps to getting where you would like to be), objectives or outcomes (what you need to achieve for each step in order to get), and measures (how well you are currently doing). In order to improve you need to take action. This includes analyzing the program to determine needed changes, planning the changes and taking actions.

Table3. Level of effectiveness on YITE learning outcomes

Module	Mean	Verbal Interpretation
Module 1 General Windows Skills	3.50	VE
Module 2 Printer and other peripherals	3.47	ME
Module 3 Word Processing	3.47	ME
Module 4 Spreadsheet	3.34	ME
Module 5 Presentations	3.48	ME
Module 6 Internet and on-line activities	3.5	ME

Significant relationship between the respondents' level of satisfaction and the level of effectiveness of the learning outcomes.

Table 4 shows the relationship between the teachers' characteristics and the learning outcomes per module. Results show that teachers' characteristics have strong relationships with the learning outcomes in all modules. The positive r-values indicate that the more satisfied the respondents are with the teacher characteristics the better the learning outcome becomes. The relationships between teachers' characteristics and the learning outcomes for all modules were significant indicating that teachers characteristics are significant predictors of learning outcomes.

Table 4. Relationship between perception on teacher characteristics and Learning Outcome

Learning Outcome by Module	r-Coefficient	Verbal Interpretation	p-Value	Verbal Interpretation
Module 1	0.85	Strong relationship	0.00	Significant
Module 2	0.82	Strong relationship	0.00	Significant
Module 3	0.86	Strong relationship	0.00	Significant
Module 4	0.81	Strong relationship	0.00	Significant
Module 5	0.93	Strong relationship	0.00	Significant
Module 6	0.91	Strong relationship	0.00	Significant

Table 5 shows the relationship between the teaching strategies and the learning outcomes per module. The positive r-values indicated that the more satisfied the respondents are with the teaching strategies the better the learning outcome becomes. Results showed that teachers' characteristics have strong relationships with the learning outcomes in all modules. The relationships between teachers' characteristics and the learning outcomes for all modules were indicating that teaching strategies are significant predictors of learning outcomes.

Table 5 Relationship between perception on teaching strategies and Learning Outcome

Learning Outcome by Module	r-Coefficient	Verbal Interpretation	p-Value	Verbal Interpretation
Module 1	0.95	Strong relationship	0.00	Significant
Module 2	0.90	Strong relationship	0.00	Significant
Module 3	0.94	Strong relationship	0.00	Significant
Module 4	0.84	Strong relationship	0.00	Significant
Module 5	0.97	Strong relationship	0.00	Significant
Module 6	0.95	Strong relationship	0.00	Significant

Table 6 shows the relationship between the program content and the learning outcomes per module. The positive r-values indicated that the more satisfied the respondents are with the program content the better the learning outcome becomes. Results showed that teachers' characteristics have strong relationships with the learning outcomes in all modules. The relationship between teachers' characteristics and the learning outcomes for all modules were indicating that program contents are significant predictors of learning outcomes.

Table 6 Relationship between perception on program content and Learning Outcome

Learning Outcome by Module	r-Coefficient	Verbal Interpretation	p-Value	Verbal Interpretation
Module 1	0.86	Strong relationship	0.00	Significant
Module 2	0.74	Strong relationship	0.00	Significant
Module 3	0.82	Strong relationship	0.00	Significant
Module 4	0.83	Strong relationship	0.00	Significant
Module 5	0.90	Strong relationship	0.00	Significant
Module 6	0.77	Strong relationship	0.00	Significant

Conclusions

The success of the service learning project requires a good project plan that, if implemented correctly will benefit both service providers and service recipients. The result of assessment in the YITE community service has been identified its current system capabilities to extend the service to the needs of individual by helping not only out school youth but also to adolescent learners.

The lead of satisfaction varies according to the lead of complexity of the modules. The more complex in the succeeding the modules .It result a decreasing rate of mean because of the teaching strategies implemented in the program

The Learning outcomes determine the effectiveness of the module. The YITE give more emphasize the “learning by doing” to identify corrections for problematic project features like teaching strategies. As Stufflebeam has pointed out, the most fundamental tenet of the model is “not to prove, but to improve” (Stufflebeam & Shinkfield, 2007, p. 331).

The higher level of satisfaction is more effective on the learning outcome. The knowledge and competence of the teacher as well as the content of the program should be regularly checked and upgraded through appropriate education and training.

Recommendations

The results of the study confirmed that the respondents are satisfied with the program. However the researcher wishes to make some recommendations to further satisfy in conducting the YITE assessment.

The ICT-ED need to develop tactics or marketing strategic plan for community services to promote YITE program concentrating for adults. It build brand - its legitimacy, identity and unique differences that make it worthy of public support for sustainability learning institution.

Review the teaching strategies of the teachers and create intervention program to facilitate effective teaching learning in the program content. Lardizabal (1996) mentioned that personal qualities of a teacher stem from his interest, attitudes, beliefs and behavior in dealing with students and other individuals. The valuing of high moral, integrity and abiding to ethical and spiritual principles in teaching profession or personal attributes is a social and personal obligation of the teacher in his career. Surely teachers must have basic moral and spiritual principles of teaching profession or in personal actuation has a social and personal obligation of the teaching career.

Additional programs are required to provide or install for further enhancement of YITE programs in the learning community. The YITE will create linkages of innovative approach locally and international to become more effective and stable.

Significance of the Study

The findings of this study are conceived to provide insights and to serve as reference to the following:

School Administrators, the findings could serve as basis in finding for alternative and continuing development program to open more opportunities for teachers in information technology education.

Parents, the information gained could be a contributing factor in the realization of the parents support and assistance needed to help the youth fulfill their need in education. Youth and community people, the information could serve as strategic motivation for them to realize that information technology education would benefit them and would give them a significant tool to combat illiteracy and poverty.

ICT-ED Institute of Science and Technology, the study could provide varied programs and activities which may be responsive to the social needs that will lead to the development and empowerment of community service.

Future researchers, this study could serve as a good source of reference that would somehow inspire others to conduct the same study. Provide qualitative information that may help them pursue studies which could help to further assess YITE programs through carefully studied implementation and community educational projects.

This study could give impact to ICT-ED management technology in terms of enrichment of ICT culture among students and teachers more efficient student and teacher administration better accessibility to information and a higher utilization of school resources.

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Infographics: Effects on Student Coding Skills and Conceptual Understanding in Biology

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Abstract

This study was conducted to test whether Infographics can improve student coding skills and conceptual understanding in Biology. Infographics was used in an intact heterogeneous Grade 7 class of 30 students (experimental group) and was compared to the conventional way of teaching the control group (30 students) in a private school in Calamba City. The two groups had the same activities (collaborative work, experiments and modelling) apart from the Infographics for the experimental group. The researcher-made Conceptual Understanding and Coding Skills Tests (pretests and posttests) which were validated by experts in the field (Biology Education and Educational Technology) and were pilot tested in two (2) private schools (Laguna and Parañaque City). The 50-item original test was reduced to 30 after item analysis. Its Cronbach's alpha of 0.878 indicated a high level of reliability. Independent samples t-test showed significant improvement in the posttest of the experimental group as compared to the control group which implicated the good effect of Infographics on student coding skills and conceptual understanding in Biology.

Keywords: Infographics, Coding Skills and Conceptual Understanding

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Introduction

The role of educators is to facilitate learning and understanding, not just retention of information (rote learning), and develop in the students the ability to perform tasks and apply knowledge in a concrete/specific situation. The teacher is the key individual who has the immense accountability in developing student capabilities by setting and establishing the learning environment. This is the reason why teachers must be very cautious in choosing appropriate and proven effective teaching strategies that could facilitate student learning. These must never be neglected for they are crucial in creating specific learning experiences to bring about criterion performances that would cause change in behavior where knowledge is applied in real life contexts (Akeji et al., as cited in Atomatofa, 2013).

Visual representations are one of the most effective tools in the communication of science concepts (Ametler & Pinto as cited in Cook, 2011). Teaching science would be very difficult without the visuals for some topics that are too small (enzymes etc.), too large (solar system etc.), too slow (continental drift), too fast (chemical reactions) to see with the unaided eye, display data or organize complex information and represent processes that are difficult to describe (photosynthesis) (Cook, 2012). Visual representations help students in developing their schema (Saunders, Wise & Golden, 1995) which is the general knowledge of objects and events from past experiences (Cohen, as cited in Nishida, 1999). It is by stimulating the schema that students are able to link prior knowledge with new concepts and information being presented (Ausubel as cited in Daniel, 2005).

The basic process in teaching/learning is that the teacher who is the origination-point has a concept or idea that the student who is the receipt-point has to absorb and understand. In order for that to happen, the teacher has to use codes or symbols to get the message across. The teacher can be considered successful in transferring the concept when the student has made it his/her (as he/she understands) own the information/concept completely, able to interpret pictures/symbols, translate textual information in the same way which is also known as the coding skills (the author's operational definition of visual literacy), and does not just depend on the teacher's words or presentation. The ability to analyze, evaluate, manipulate information and put them to use provides evidence that the student has achieved conceptual understanding. To make such learning possible, it is important that the teachers are easily understood by the students.

The human mind works by representation and computation of things and events around him/her which provide the basis for all mental functioning (Mohammed, as cited in Friedenbergr & Silverman, 2006). Reynolds and Baker (1987) found that instructional materials prepared digitally (computerized) had increased student attention and learning; and as attention increased, learning also increased. In this generation with fast-paced technology, teachers can take advantage of the opportunity to use technological/digital instructional tools to teach students better. Infographics are instructional tools that can be presented in digital forms that are visually appealing, and could motivate students to engage and learn. Infographics can also help illustrate new information (texts and concepts) and complex data visually in a more graspable way.

This study aims to know the effects of infographics on student coding skills and conceptual understanding in Biology.

Methodology

Research Design

The pretest-posttest quasi-experimental design was employed in the study. Both the experimental and control groups were given the Coding Skills and Conceptual Understanding pretest-posttest to determine whether Infographics had an influence on the improvement of learning in Biology.

Sample

Sixty (60) students, with ages 12 to 13 years old, from two (2) intact heterogeneous Grade 7 classes in a private school in Calamba City were involved in the study. The selection of the experimental group (infographics) and the control group (conventional approach) was done through a toss coin.

The Use of Infographics

The instruction for the experimental group was done in the morning daily from 7:00 to 8:00 A.M., and an hour for infographic practice/exercise in their computer class in the afternoon (made in collaboration with the computer teacher).

The students followed the guidelines below in doing the Infographic exercises and assignments (<http://www.learndurkin.com/assets/graphicsstudent-infosheets.pdf>):

1. Read the lesson from the textbook carefully. Then locate, analyze and sift relevant/important data and decide how you are going to group information considering the complexity of the topic and the receiver of the message.
2. Sketch out your idea on paper. Organize your idea first before you start choosing graphics from the computer. Once the organized data and graphics are ready, you may begin to layout the design.
3. Decide how to best visualize the meaning of the information. Determine the kinds of graphics that will best represent each information.
4. Write a caption that clearly summarizes the content of the infographics.
5. Carefully select a color scheme for the Infographics. Make use of as many colors that you have in the color wheel.
6. Carefully select the font and font size (big enough) that do not distract the reader from the message.
7. Bring individual elements into a cohesive layout. Any graphics used must have enough resolution and size. The layout must have good spatial organization, structure of elements, and informative value.
8. Do refining processes by gaining feedback from group mates.
9. Make sure that your Infographics depicts your message. Ask a classmate or group mate to tell you the message that he/she gets from your Infographics. Do some adjustments from feedbacks.
10. Always cite your sources of pictures, images and others.

Table 1 compares how the use of Infographics and the conventional approach are implemented in the experimental and control classes.

Table 1

Comparison of Infographics and Conventional Approach

Infographics Group (60 minutes)	Conventional Group (60 minutes)
Motivation (10 minutes) <ul style="list-style-type: none"> • Asking questions • Citing situations or stories referring to Infographics 	Motivation (10 minutes) <ul style="list-style-type: none"> • Asking questions • Citing situations (stories)
Pre-Activity (10 minutes) <ul style="list-style-type: none"> • Games • Infographic Presentation • Discussion 	Pre-Activity (10 minutes) <ul style="list-style-type: none"> • Games • Discussion
Activity Proper (20 minutes) <ul style="list-style-type: none"> • Collaborative Activity (Reporting, PowerPoint presentation and Group Discussion/Activities) • SOI Modeling 	Activity Proper (20 minutes) <ul style="list-style-type: none"> • Collaborative Activity (Reporting, PowerPoint presentation and Group Discussion/Activities)
Processing with Infographics and Classroom Discussion (20 minutes)	Processing through Classroom Discussion (20 minutes)

The teacher used the Infographics in discussing the lessons in the experimental group. The teacher-made Infographics was assigned to the students before a lesson was introduced to give them enough time for group analysis, evaluation, and reflection of their understanding by discussing and sharing insights in preparation for the creation of their own. This activity was part of the SOI exercise (Selecting, Organizing and Integrating) in choosing the relevant information (ideas, concepts, events etc.) for summarizing the lessons before laying out the Infographics design.

The SOI Design of Infographics (Mayer, 2010) includes the following:

- a.) selecting relevant words for processing in verbal working memory
- b.) selecting relevant images for processing in visual working memory
- c.) organizing selected words into a verbal model
- d.) organizing selected images into a pictorial model
- e.) integrating the verbal and pictorial representations with each other, and with prior knowledge.

Research Instrument

In the study, the Coding Skills and Conceptual Understanding Test were developed by the researcher to measure the students' coding skills and prior/deeper understanding in Biology.

The Coding Skills Test (CST)

This is a five item test with 10 points given for each as a score. It contains posters for the students to interpret and textual information to be interpreted through drawings. The researcher prepared rubric was used to grade the students by the teacher/researcher and invited science teachers as interraters.

The Conceptual Understanding Test (CUT)

This is a 30-item multiple choice type of test trimmed down and modified after doing the item analysis. The Grade 7 science second quarter topics such as Biological Levels of Organization, Characteristics of Life, Basic Unit of Life, Prokaryotes vs Eukaryotes, Cell Structures and Functions, Plants vs Animal Cells and Ecosystem were covered. Originally, 50 items were prepared based from several resources (TIMSS Like Items in Science and Math 2002 and DOST-SEI eTraining Manual for Teachers), were validated by subject matter experts and pilot tested to Grades 8 and 9 students of the sample school and another private school. The test had a reliability coefficient of 0.878 (Cronbach's alpha) which was considered very high (close to 1).

Results

Pretest Scores of Experimental and Control Group

Table 2. presents the results of both groups in the Coding and Conceptual Understanding Pretest.

Table 2.1

<i>Means and Standard Deviations of Coding Skills Pretest</i>				
Group	N	Mean	SD	SE
Control	30	7.5	6.7	1.22
Experimental	30	18.8	11.6	2.12
Note: CST Perfect Score = 50				

Mean Difference in the CS Pretest of the Experimental and Control Groups

Mean	SD	SE	t	df	Sig (2-tailed)
-11.27	12.88	2.35	-4.79	29	0.00

Note: CST Perfect Score = 50

Table 2.2 ANCOVA for CST Posttest

F-Ratio = 18.109

p value = 0.00

The results of ANCOVA show that the experimental group performed better than the control group in the posttest. This indicates that the treatment had a positive effect on the coding skills of the students in the experimental group, although the control group also slightly increased in their posttest scores. Students in the experimental group who have shown enthusiasm and improved work in their seatworks, group work and assignments have higher scores than those who were not. Since the students came from different elementary schools and were in their first year in high school, all are considered with low prior knowledge about the topics. The results agree with the findings of Mayer and Gallini (1990) that those who have low prior knowledge about a topic or a subject would have greater benefit than those who have higher prior knowledge. In doing the infographic exercises and assignments, the students were able to practice using or doing the SOI, which according to Waldrup (2006) would help learners link verbal and visual codes in developing knowledge of science concepts and processes. In his study, students who were able to represent their knowledge have higher performance, concept understanding, spatial visualization and proportional reasoning (Matulac-Belarga, 2007). The students in the experimental class were given the time to read and analyze a given reading exercise and assignment; and to reflect on the teacher's infographics. From this activity, the student could create his/her own infographics after selecting what he/she thought was necessary or important for his/her own recall and learning. Also from Mayer's (2007) findings, those who were able to create their own graphic organizers, infographics in this study, were able to learn best.

Table 3 Presents the Results of both Groups in the Conceptual Understanding Pretest.

Table 3.1a

Means and Standard Deviations in the Conceptual Understanding Pretest

Group	N	Mean	SD	SE
Control	30	13.1	4.49	0.82
Experimental	30	14.6	2.72	0.50

Note: CUT Perfect Score = 30

In order to compare the initial conceptual understanding of the two groups, the pretest mean scores were subjected to independent samples *t*-test. As shown in the table, the experimental group obtained a slightly higher mean score ($M = 14.6$, $SD = 2.72$) in the pretest than the control group ($M = 13.1$, $SD = 4.49$). The experimental group got a mean score which can be rounded off to the passing mark (15) and obtained a small value for standard deviation (2.72). Table 3 indicates the mean difference of the two groups.

Table 3.1b

t-test for Equality of Means in the CU Pretest Scores

Mean Difference	SD	SE	t	df	(Sig. 2-tailed)
-1.50	5.37	0.98	- 1.54	29	0.137

The mean difference in the CU pretest scores is not significant at $t_{\text{computed}} = -1.54$ against $t_{\text{table}} = 2.05$; and 0.137 significance which is greater than 0.05. The results indicate that the two groups were comparable in terms of conceptual understanding at the beginning of the treatment. Table 4 compares the means and standard deviations of both groups in the Conceptual Understanding Posttest.

Table 3.2a

Means and Standard Deviations of Conceptual Understanding Posttest

Group	N	Mean	SD	SE
Control	30	13.4	5.41	0.99
Experimental	30	18.2	3.04	0.56

Note: CUT Perfect Score = 30

The mean score of the experimental group ($M = 18.2$, $SD = 3.04$) was higher than that of the control group ($M = 13.4$, $SD = 5.41$), and was a little higher than the passing score, while that of the control group was still below the passing score and increased only by 0.3. The standard errors for both groups were just close to 1 (small margin of error). Table 5 highlights the significance of the two groups' mean difference.

Table 3.2b.

t-test for Equality of Means on the Conceptual Understanding Posttest Scores

Mean Difference	SD	SE	t	df	Sig (1-tailed)
4.8	6.7	1.2	- 4.8	29	< 0.05

The mean difference in the CUT posttest scores with $t_{\text{computed}} = -4.8$ against $t_{\text{table}} = 2.05$; and p value less than 0.05, is significant. The results indicate that the experimental group performed better than the control group after the treatment. The use of infographics as instructional material in Biology led to significant difference in the posttest scores in favor of the students in the experimental group.

Conclusions and Discussion

Based on the results of the study, the use of Infographics in teaching Biology is more effective in improving student coding skills and conceptual understanding than the use of the conventional approach. The researcher's theory is that Infographics helped in decongesting the lessons and removing irrelevant information that made the concepts easy to organize and link with prior knowledge. The SOI exercises trained the students in making an outline or summary of a lesson and helped them in tapping/enhancing their coding skills. In reading and outlining, the students were actively processing the information they were receiving and not just memorizing them. In this process, they selected which of the information were necessary and those that were irrelevant or could be discarded.

Since the brain can only store limited information, Infographics also helped in chunking or grouping the information (terms, ideas and concepts) that would go together. The researcher believes that Infographics facilitated recall and retention by reducing and avoiding cognitive overload. Infographics also helped in setting the learning environment and conditioned the minds of the student for learning. Infographics made the students more engaged and excited, especially that they were aware that in any part of the discussion the teacher would show the Infographics with different designs. They were also expectant of the SOI activity where they could try to design their own Infographics. Infographics also helped in drawing out students' prior knowledge in Biology, and linking them to topics being discussed. The results of this study promote the use of Infographics in improving student conceptual understanding especially in teaching subjects with complex topics such as Biology. This does not just decongest the teacher's lessons but also allow the students to engage actively in constructing their learning, by critically analyzing, exploring, critiquing and reflecting on the lessons being learned.

These findings can help the educators in selecting the textbooks already out in the market, that they are going to use as their resources in teaching. It also suggests that textbooks and other instructional materials in many subjects should be designed according to these findings which are supported by related studies such as: the use of graphic and text format that provide separate systems or stores (Paivio, 1971), SOI Model highlights of important and relevant texts and not much words must be used (Mayer, 1999), international or contextual symbols or images which every learner understands (Worthington, 2005), the visual design principle (Williams as cited in Yeh

& Lohr, 2010) which is an effective framework for teaching the skills, the cognitive processes that go beyond remembering (Topiel, 2013), the use of colors which most learners prefer and simple visuals (Matt & Carter, 1999; Kleinmann & Dwyer, 1999), and the use of static vs animated visuals (Chanlin, 1998) that facilitate learning where learners can have a meaningful understanding of the information presented and thus construct their knowledge. And lastly, the use of an assessment tool appropriate for the class composition and their learning needs.

Recommendations

Based on the findings of the study, teachers should design appropriate infographics for visual learners to facilitate recall and retention and thus improve coding skills that lead to conceptual understanding. It is highly recommended for educators and teachers to capitalize on this alternative instructional material to prevent students from getting bored.

School administrators must support the teachers in the implementation of infographics in the teaching of Biology and other subjects by providing trainings and workshops. Curriculum developers may incorporate infographics in the development of instructional materials to reinforce learning and produce scientifically and visually literate individuals.

This study lasted for four weeks only. For future studies, researchers can lengthen the time for the intervention so that the students can further learn the better way to use the SOI model. The sample size can also be increased to strengthen the results, for in statistics the larger the sample size the more reliable the figures and conclusions will be. This can be done for one grading period without saturating the students. Future researchers can look into the effects of infographics on other learning outcomes such as scientific literacy, metacognitive skills, intrinsic motivation and others. They can also take into consideration students who are low imagers or with low aptitude, to determine the extent to which infographics can help them improve in their performance.

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Appendix A

Figure 1. The Coding Skills (CST) and Conceptual Understanding Test (CUT)

A. The CST

Group the following words into categories :

lettuce	sandwich	strawberry
tomatoes	ice cream	fried tilapia
cassava cake	cucumber salad	milk shake
roast chicken	grapes	tuna omelette
steamed lapu lapu	ensaymada	carrot cake
papaya	pork barbeque	embutido
corn on cob	sauteed string beans	baked mussel
pandesal	hotdog	melon
Cheese	camote que	vegetable salad



B. The CUT

I. Directions: Encircle the letter of the correct answer.

1. In what forms of chemical energy are CO₂, H₂O, and sunlight being converted during photosynthesis?
 - A. O₂ and H₂O
 - B. Glucose and ATP
 - C. O₂ and ATP
 - D. light energy and H₂O
2. Why is furlrowing not possible for plant cells during cell division?
 - A. because the cell wall is rigid
 - B. ribosomes are responsible for protein synthesis
 - C. because mitochondria in plants are the powerhouse
 - D. because the chloroplast is the site for photosynthesis

Coding (Visual Representation) Rubric				
	1	2	3	4
Chunking or Organization of Information	Chunking/Organization of Information is not logical and hard for the learner to understand	Chunking/Organization of information is a bit confusing but somehow show relation to other information that would make it understandable to the learners	Chunking/Organization of Information is understandable to the learners	Chunking/Organization of information is logical, sequential, logical and effectively conveys the meaning and purpose to the learners
Knowledge	Do not have an understanding of the content or the lesson. The content of the infographic is far from the core of the topic	have only a basic understanding of the content and do not show the summary of the lesson	demonstrate a firm grasp of the content and able to show the summary of the lesson	demonstrate an in-depth understanding of the content and provide a valid summary of the lesson
Graphics – Clarity (Images or Symbols Used)	Many graphics are too small or unclear	Graphics can be understood through the caption	Most graphics are clear and related to their captions	Graphics and captions are clear and are easily identified
Graphics- Relevance	Graphics do not directly relate to the topic	Some graphics relate to the topic	Most graphics are related to the topic and easier to understand	All graphics are related to the topic and easier to understand
Texts/Captions Used	Texts/captions are not directly connected to the graphics	Some texts/captions are not directly connected to the graphics	Most texts/captions are directly connected to the graphics	All texts/captions are not directly connected to the graphics
Visual Product (Infographics) - font, color, images and design	The infographic is not engaging or not well designed	The infographic may not be engaging but well designed	The infographic is somehow engaging but not well designed	The infographic is very engaging and well designed
Resource Page and Works Cited	The infographic does not cite resources	The infographic does not cite research and relies heavily on electronic resources	The infographic reflects/cites adequate research but relies heavily on electronic resources	The infographic reflects/cites adequate research and electronic resources

patterned from www.mrmasters.net

Figure 2. The Coding Skills Rubric

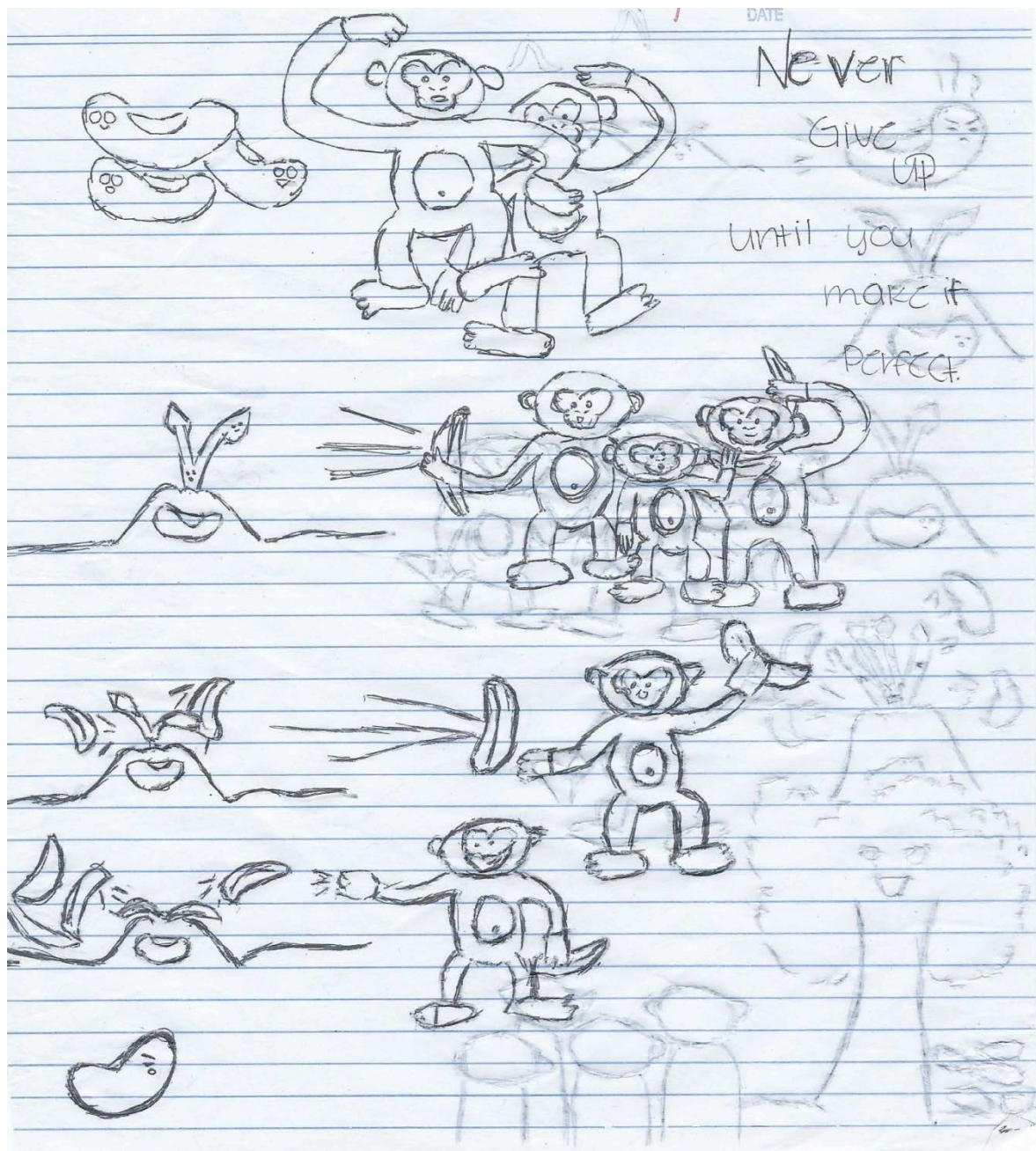


Figure 3. Initial attempt of a student to code a story (seed germination)



Figure 4. Infographics on characteristics of life

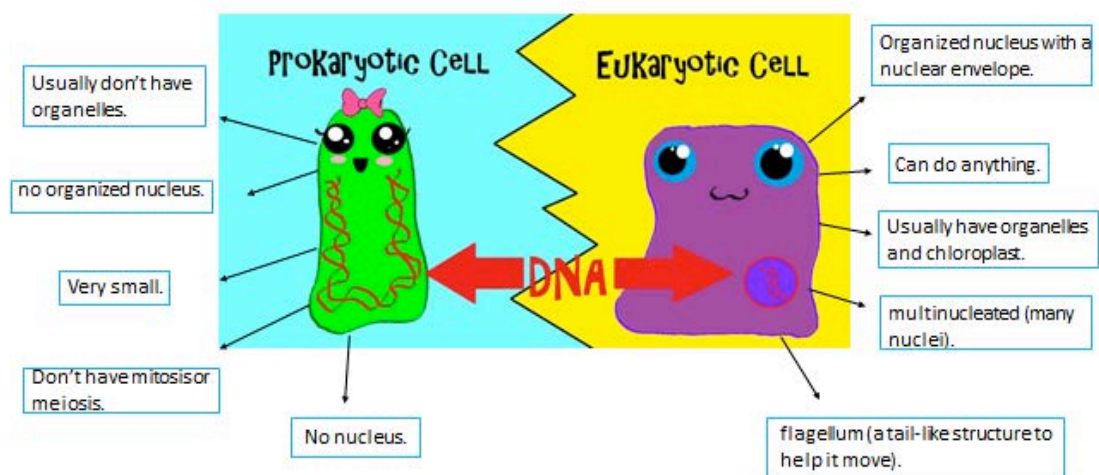


Figure 5. Comparison of prokaryotic and eukaryotic cells



Why Can't Mine Be International?: An Exploration of the Challenges of Internationalisation in the Public Universities in Ghana

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Abstract

Internationalisation has become a key concept driving policies and practices in many public universities in Ghana. However, internationalisation as a concept, is bedeviled with many challenges, which impact negatively especially on ex-colonial countries.

This paper explores the challenges of internationalisation in the public universities in Ghana. The research was a qualitative and multiple case studies of three public universities in Ghana. The methods employed for the study were interviews and documentary analyses. The population comprised senior administrators, deans, heads of department and students.

The findings indicate that the universities, as they strive to position themselves internationally, are confronted with many challenges including a sense of inferiority complex and dependency, North/South dichotomy and power imbalances, stigmatisation, limited funding and research, and lack of national policies. These challenges limit the ability of the institutions to contribute meaningfully to the internationalisation agenda. The challenges also limit their abilities to challenge the dominant discourse and offer a different and distinctive 'internationalisation'.

Keywords: internationalisation, challenges, strengths, opportunities, colonisation, neoliberalism

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Introduction

Internationalisation has assumed an increasingly dominant position in determining policies and practices of higher education around the world (Hudzik, 2011; Rowi, *et. al.* 2013). According to Hudzik, internationalisation has become ‘imperative, not just a possible desirability’ of higher educational institutions (2011:6). Altbach (2010) describes the concept as a ‘Revolution’ of higher education.

The emphasis on internationalisation has gradually been reiterated by African universities. A core function of the Association of African Universities (AAU), of which almost all universities in sub-Saharan Africa are members, including the public Universities in Ghana, is to emphasise internationalisation and collaboration among African higher educational institutions and institutions abroad (Website of the AAU). It is hoped that enhancing internationalisation will boost the competitive edge of the universities (e.g. Mbeki, 2005).

Conversely, internationalisation is a concept bedeviled with various challenges including its definition, usage, impact and implications. For instance, it impacts differently on different countries, depending on many factors including the historical, the economic and the socio-political positioning of the country (Knight, 2004, Knight, 2008; Rowi, *et. al.* 2013). Postcolonial theorists and many other writers have expressed concern about the negative impacts of such concepts as globalization, internationalisation and neoliberalism on ex-colonial countries (e.g. Fanon, 2004; Rizvi *et. al.*, 2006). According to Rizvi *et. al.* (2006), such contemporary happenings tend to perpetuate colonial legacies including inequalities and dependency on the West.

The inequalities include the dominance of the English language globally and market imperatives (Harris, 2011; 2007 Harvey, 2005; Unterhalter and Carpentier, 2010). There is also the concentration of ownership of publications, databases, and other vital resources in the privy of the ‘strongest universities’ located almost exclusively in the developed world (Altbach, Reisberg and Rumbley 2009:7).

Another major challenge confronting the universities is lack of funding (Sawyerr, 2004; Teferra and Altbach: 2004). Teferra and Altbach (2004) perceives the funding challenge as the severest of all the challenges confronting the universities in Africa, and in an era of internationalisation. The lack of funding and subsequent lack of resources has made the universities become ‘permanent supplicants for foreign development assistance’ (Lulat, 2005: 379). These challenges further exacerbate the power imbalances between the global south and the global North. With the limited funding of many African countries, the West dictates the pace, values and methodology of research, and worldview of knowledge (Harris, 2007). As MacGregor (2011) indicates apart from South Africa, the concept of internationalisation seems to be slowly catching up in other African countries. According to her, Africa continues to be at the periphery of international education, without any meaningful influences or identity.

However, some writers have indicated that, internationalisation also provides various opportunities to African universities and their national development as well as to be competitive globally (e.g. Rowi, *et. al* 2013). According to Rowi, *et. al.* (2013) internationalisation enhances interdependence, interconnectivity, partnership and mobility across the globe. It enhances integration of knowledge systems for development. It also enhances research, capacity building and production of highly-skilled knowledge workers to enhance national completion. In the end internationalisation helps African nations and their institutions of higher learning to acquire and also exchange the expertise, human resource and knowledge systems needed to achieve their development goals (Rowi, *et.al.* 2013). It is argued that African universities cannot sufficiently address developmental challenges on their own unless they equally draw on global knowledge systems (Ibid).

In the context of the aforementioned arguments, the importance of being internationally acclaimed in the Ghanaian universities has increased with references in university documents to the need to become world class, and the importance of internationalisation. The institutions have adopted various strategies including developing new mission statements, entering into collaborations with universities both within the African region and outside, and benchmarking foreign universities (Gyamera, 2015). In spite of these efforts, the universities are confronted with challenges, which limit their impact in the international arena.

This paper focuses on the key challenges confronting the universities in Ghana in an era of internationalisation. The paper will be in three sections. The first discusses the empirical study, the second present the findings and discussions, while the third presents recommendations and conclusion.

Methodology

This paper is based on an empirical, qualitative study, of three public universities in Ghana. They were chosen based on age, size, feasibility, mandate and location.

The population of the study comprised senior management, deans, heads of departments and academics.

The instruments I adopted for this study were interviews and documentary analyses and observations. The interviews were semi-structured with open-ended questions. Out of the thirty-seven respondents, thirteen were administrators, seven were Deans, seven were Heads of academic Departments, nine were academics and two were interviewed in their capacity as administrators of supervisory bodies of the universities. Again, out of the total number of respondents, fifteen were professors with PhDs, thirteen have their PhDs but are non-professors, and nine had Masters degrees. Only four out of the total number were females. Respondents were asked about the challenges confronting the universities in their bid to internationally position themselves.

The documents included basic statistics of the universities, university handbooks, institutional reports and historical backgrounds of the universities. Reports of the Vice Chancellors and Strategic Plans were obtained from the websites of the universities.

Findings and discussions

Ghanaian universities have consistently been confronted with various challenges over the years. However, in response to internationalisation, the universities have embarked on various strategies to address these challenges (Gyamera, 2015). In spite of these strategies, which is not the focus of this paper, the findings of the research indicate that the Universities are confronted with various challenges in their efforts to internationally position themselves. Below I discuss these challenges, which limit the efforts of the university to contribute internationally. It is also significant to explain that although there were some little nuances among the universities, mainly, they all appear to be confronted with similar challenges.

The North/South dichotomy and an eschewed power relations

The majority of respondents in all the universities indicated that the biggest challenge has to do with the way the international economic system and politics are ordered: the poor and 'voiceless' South, vis- a- vis the rich and powerful North. This dichotomy fuels Western superiority. One of the Deans in expressing his views internationalisation explained;

And really when we say international arena we are talking about the West basically. We are not thinking about [mentions a country], we are not thinking about [mentions another country], we are not thinking about any other place...and so there is a danger in this narrow definition of internationalization, to me Westernisation. That is what is worrying, very, very, worrying...Oh the dangers are obvious...to think that a subset of the world is the whole world, I mean that is dangerous s thinking...anything that is good for the West is good for everybody else.

Another academic explained in his argument against the dominance of the West:

I have problems with everything international. Why should something be seen as international? Who made it international? Those are the things that we have to question...[We] don't present anything universal, it is always the West...and then we fixed ourselves in those things...I have a problem with internationalisation, globalisation...We always talk about globalisation, whose globe is it? Ok, why is it global, why cant mine be presented as a global issue but always ideas about the West...why don't we also project ours...?

The above quotations confirm Western domination and demonstrate a dominant question in the minds of many participants. With such power relations and related perceptions, it is difficult for the universities to contribute immensely to the dominant Western and

neoliberal internationalisation discourse. A major challenge for instance, is for the universities to offer distinctive knowledge systems from the West. Although it has been argued that African universities cannot solely rely on indigenous knowledge systems (iks) to develop and integrate into the global arena (Rowi, et. al. 2013), I argue that it is critical that the universities acquire a distinctive knowledge to be able to make the relevant impact both nationally and globally. Ghanaian/African indigenous knowledge systems, which could have served as alternative to the West, appears less emphasised in the universities. Such dichotomies also entrench the stigmatisation of the universities, as African universities.

Stigmatisation of African Universities

Though the universities make efforts to follow Western standards, the limited infrastructure and facilities, coupled with mis/representations of colonial legacies have created a stigma on the universities. The stigma has various ramifications for the institutions.

It is difficult, for instance, for the universities to attract international students, which is a major feature of internationalisation. The difficulty in attracting foreign students also deprives the local students of the diversity and dynamism international students bring on campuses. It appears that in spite of all the assumed flow of students and staff across continents and nations in the context of internationalisation, few students from North America, Europe and the developed Eastern countries choose to pursue their university studies in Africa.

The three universities attract mainly two types of international students: international students who come to do four-year full time programmes and those who come to do short programmes normally for one or two semesters. The majority of full time international students are from neighbouring African countries, especially from Nigeria, whilst students who come for short courses are mainly from North America and Europe. Statistics derived from the website of the University of Mawuta, which is the largest and most prestigious university in the study, indicates that in the 2012/13 academic year, out of a total intake of over 15,000 students, about 1,000 were international students. Out of this number only 190 students were from North America and Europe. Only two students out of this number did two semesters. All the others did only one semester and only 25 were from Europe. About 160 were from USA. The statistics indicate that even the few students who come are mainly interested in Africa related subjects (University website). The other two universities attract less international students. The University of Ojo attracts the least international students. At the time of the research, they had less than five international students.

The ubiquitous case of limited funding

Funding is the main challenge, which every respondent in the study, mentioned as obstructing their abilities to implement effective changes. The limited funding is also mentioned in all the strategic plans of the universities.

The Government subvention, which is the major source of funding, is considered woefully inadequate by the universities. The gap between the expected funding and the required funding of the universities keeps expanding. The inadequacy of government funding has made the universities to rely more on Internally Generated Funds (NCTE, 2012).

The dwindling of government support appears to be based on the belief that universities require a relative independence from political, economic and corporate influence to function optimally. This is also based on Western neoliberal ideologies which emphasise market principles and which continually shift government policies away from investing so much on higher education and from emphasising state regulatory policies. A major challenge as respondents indicated is acquiring funding for research, particular to on indigenous knowledge systems (iks) which, as indicated above is essential if the Universities could contribute to internationalisation. Respondents emphasised limited support from the government.

According to respondents, there is rather emphasis on science and technology to the exclusion of indigenous knowledge systems. The limited funding limits the ability of researchers to research on local products so as to be able to improve and enhance their usage or develop further knowledge on them. Some of the respondents expressed their interest to research on local products but they were unable to do so because of limited funding. One of the respondents puts it this way:

I am interested in investigating most of our traditional fruits, 'dawadawa', 'atadwe' etc. I am in yam production here, what are the best and fastest ways to cultivate yam? These require certain equipment. Those equipment are from foreign countries, they are high tech, and the university has no money to buy them...Now there is no donor there who is interested in our yams or dawadawa. The average Ghanaian woman who is interested in dawadawa has no money to give me to do research...

This statement equally portrays the limited extent to which academics could engage in research without the donor support. Such limitations perpetuate the concentration of knowledge in Western societies. The limitations also lead to limited research.

Limited research

Historically, research has been central to universities worldwide. In the context of internationalisation, however, the crucial importance of research in higher education has become phenomenal (Altbach and Salmi, 2011; Harris, 2011, Rowi, et. al. 2013). The number of researches produced by a university enhances its prestige and world recognition (Burke, 2012) . However, many respondents especially in the departments of Agriculture discussed how limited funding and infrastructure including lack of certain equipment, chemicals, water and electricity affect their ability to do research in the universities. Even where the academics are able to undertake research, there are

problems with publishing. Many of the academics lamented on their inability to publish books. The printing presses of the universities do not function mainly due to limited funding to support them. There are few local publishers and it is difficult to obtain a contract with a publisher. This challenge also limits their ability to attain the international reputation associated with research.

Without the needed funding and infrastructure, it is difficult to challenge the hegemony of the West. As an academic at the University of Mawuta asked:

... But do you question Western knowledge and then tell them to publish your work? It doesn't work that way. If you want to challenge them then you must have the outlet to challenge them.

Such conditions affect the confidence level of academics and their ability to develop indigenous knowledge systems, values and products. It thus affects the ability of the local universities to add to international knowledge systems. Such limitations enhance stigmatization of the universities which exacerbates the imbalanced power relations and Western hegemony. Universities with limited research, in an era of internationalisation will continue to exist as peripheries of the Centre (Altbach, et. al. 2009).

Unequal partnership in collaborations

It is believed, not only by universities in Ghana, but worldwide that the more international collaborations and international students a university has, the higher its quality and reputation (De Wit, 2011; Knight 2011). Collaborations are thought to enhance intercultural learning and diversity, and enrich classroom learning. They are also thought to promote networking and enhance exposure. All these could be immensely beneficial to the universities (Rowi, et. al. 2013). However, in spite of the fact that collaborations are supposed to benefit both universities and be on mutual grounds, the data indicated that many of the collaborations between the universities and Western counterparts are beset with a lot of challenges, which could also be situated in the colonial legacy.

While the University of Mawuta did not say anything regarding the challenges of these collaborations, the two other universities talked about these problems. The challenges include a seemingly unequal relationship between the North and the South divide, differences in expectations, and at times, what is perceived as exploitation of the universities by some universities in the North. A Dean of the School of Agriculture at the University of Ndebang, who is a professor had this to say about these challenges:

It is becoming quite interesting. Sometimes, the North-South collaborations had ended up being... a master... it's not been on equal footing...I think there has been inequalities ... and sometimes the emphasis is also on the fact that we here are not vocal or savvy enough to fight for a good something when we are collaborating.

This statement shows the perceived inequalities and power relations occurring in collaborative ventures between institutions and individuals in the North and the South. This respondent again cited an example where they were used as collaborators with an institution in a Western country. The Western collaborative partners received the funding and undertook the project in their country. At the end, the Ghanaian partners felt they did not gain anything from the project. Another respondent who is a professor at the University of Ojo cited an incident where they did a joint research with some researchers from the West, but in the end, the Ghanaian collaborators were not cited as contributors to the research. These unequal relations, I would argue, occur because mostly, the universities in Ghana, due to many of the challenges discussed above are at the receiving end of the collaboration, becoming beneficiaries of scholarships, funding for research and other grants. Since the collaborative partners have more resources, they are able to influence and control the collaborations.

It is significant to say that while some respondents felt they were pressured to accept the terms and conditions of collaborations, others did not, nor did they feel pressurized to accept Western initiatives. I argue however that while respondents may not be pressurized, they may enter into certain collaborations expecting some benefits, financial or as contributing partners of research. However, as explained above, they do not often derive such anticipated benefits which at times make them feel exploited.

In some cases, as indicated above, research activities that emerge from such collaborations are not commensurate with the needs and goals of the local institutions and the nation (Sawyerr, 2004.) Thus though universities in the South may have certain opportunities through these collaborations, they may also be vulnerable to exploitation by some institutions in the North due to various weaknesses of their higher educational systems coupled with their many challenges (Naidoo 2007).

Lack of national policy on Internationalisation

Currently, there is no national policy regulating the internationalisation of higher education in Ghana, especially at the institutional level. Though there are national policies including immigration laws, foreign relation policies, trade, employment and accreditation which may impact on internationalisation, there is no national policy related to funding, research, teaching, programmes and general direction of internationalisation at the universities. Many of the universities adopt ad hoc approaches to internationalisation. A lot of these strategies are based on Western standards and approaches.

The lack of policy on internationalisation is worsened by the fact that there is no comprehensive national policy on higher education in Ghana to direct the institutions' activities and goals (Communiqué on Tertiary Education Policy Dialogue, 2013). For instance, as indicated by the Communiqué on Tertiary Education Dialogue, there is no clearly nationally developed vision or plan to guide higher educational institutions in various aspects including focus, research and innovation. The limited policy on

internationalisation in the universities in particular, and the lack of comprehensive policy on higher education generally, exacerbates many other challenges confronting the universities.

Negotiating the terrain

A complex interplay of historical, economic and social factors creates various challenges for the universities in Ghana, as they strive to position themselves internationally. However, with the strengths and opportunities, the universities could negotiate the terrain to make their contributions count in a globalized world. Also strengthening the internationalisation processes will enhance the ability of the universities to contribute immensely to their local needs and expectations (Rowi et al. 2013). Based on the research, this section presents recommendations to enhance the internationalisation process in the Ghanaian universities.

A contextualized approach to internationalisation

The present global occurrences including internationalisation, have created new forms of power relations, which, I argue in support of post colonial theorists among other writers, should be situated in the context of colonial empires (e.g. Harris, 2008, 2011; Hardt and Negri, 2000; Rizvi, 2006). Unlike colonialism, contemporary happenings do not rely on fixed borders, and are managed through 'hybrid identities, flexible hierarchies, and plural exchanges through modulating networks of command' (Hardt and Negri, 2000 p. xiii) but they, nevertheless re-create power inequalities and dependencies which decolonization processes seek to address (Ibid, Rizvi, 2006). There is the need for the universities to reinterpret internationalisation to reflect the Ghanaian context and reflect what they could distinctively offer. Such an approach will eliminate the inferiority and dependency approach that presently, characterise the approach to internationalisation by the universities. Reinterpreting internationalisation, I argue should equally involve addressing the misrepresentation of Africa.

Addressing the misrepresentation of African

As the universities strive to internationally position themselves, as they strive to follow international standards and homogeneity, it is important for the universities to make efforts to avoid and resist negative representations of Africa themselves through their actions and inactions. Though colonial subjects hardly follow colonial dictates without any form of resistance (Bhabha, 2009; Rizvi, et. al. 2006), the data indicates that in the context of internationalisation and the need for homogeneity, the Ghanaian universities hardly offer any resistance towards what is perceived acceptable by the West. Often when they resist, the form of resistance is itself seeped and inhibited by the language of the colonial 'master' (McLeod, 2000; Rizvi, 2006). Language is very significant 'in the colonial formation of discursive and cultural practices' (Rizvi, et. al. 2006: 50). The universities should critically examine the type of discourses, language and methods of teaching in the institutions, which would tend to perpetuate more cultural and psychological domination. Particular attention should be given to pictures and video clips

used in power points presentations during teaching and other presentations could have an impact on students and other individuals.

Towards A Comprehensive National Policy on Internationalisation

To give a firm direction to a national internationalisation policy, there is equally a need for a comprehensive national policy on higher education. It would be difficult for a national policy of internationalisation to succeed without a comprehensive national policy on higher education.

Collaboration of the universities and the government

Firstly, there is the need for effective collaboration between the universities and the government. I argue that the internationalisation process, I argue, is so demanding and complex for the universities to deal with it alone. Secondly, the policy of internationalisation which must be formulated and agreed upon by key stakeholders such as the Ministries, the regulatory bodies, the tertiary institutions, industries and national research councils should be nonpartisan.

There is also the need for collaborations of sister universities in Ghana. The universities should cooperate and work together to project themselves internationally. There is the need for synergy of strategies, efforts and programmes. Such collaborations would involve sharing instead of competing; they would also enhance the streamlining of activities to enhance equal participation and sharing of intellectual properties, especially with international collaborative partners.

Funding

A major need for enhancing the internationalisation agenda is funding. Funding from the government would improve facilities of the universities, which in turn would help the universities to attract more international students. Attraction of students could be a major opportunity for addressing the perceived problem of over-dependence on government funding.

More students and academics should also be supported to have further studies abroad to enhance their intercultural learning and appreciation. As students of Economics at the University of Ndebang said, it is only when academics are exposed internationally that they will be able to integrate international experiences in their teaching. More academics should also be sponsored to have international seminars, workshops and conferences. Some academics have indicated that exposing academics internationally should be more than the short periods at conferences and workshops (Harris 2008). In the Ghanaian context, I argue, these short exposures could be a major boost to the internationalisation process.

Ranking of the universities

Efforts are being made by the Ministry of Education to introduce ranking systems in the universities as is happening in global universities. I suggest that the ranking systems should not be based on the parameters used by the Western world. I argue that if the universities emphasise the Western benchmarking, local needs and iks will be suppressed.

The parameters should be based on 'fitness for purpose' principle instead of the 'one-size-fits-all'. If the universities go according to world ranking parameters, many universities which are really impacting on the communities, would be neglected, and this will exacerbate the inequalities in the country. For instance, when using infrastructure and citations, it will be difficult for the University of Ojo to bypass the University of Mawuta. The fault, however, will not be Ojo's. Moreover, the biases, shortcomings and flaws of the dominant ranking systems have been confirmed by various reports (Rauhvarges, 2011, European Commission, 2009). These rankings 'enjoy a high level of acceptance among stakeholders and the wider public because of their simplicity and consumer type information' (European Commission, 2009).

I argue that in the Ghanaian context, much attention can be paid to community participation of universities, how they are able to help the disadvantaged groups or how the universities address particular needs of the communities in which they are situated, and the country in general. I argue that the ranking parameters should be based on the needs and abilities of the Ghanaian community.

Emphasising indigenous knowledge systems

There is also the need for the government to enhance and emphasise iks in the universities. Though some of the departments in the study have made various efforts to enhance iks in their curricular, it was realised that these are done in ad hoc basis without firm institutional and national policies to regulate it. Various factors including dictates of the market and present emphasis on the instrumental usage of knowledge limit the emphasis on indigenous knowledge systems. Even at the University, where there is a national mandate to emphasise iks in the curricular and in addressing indigenous problems, the scientific knowledge systems and ways of addressing problems are emphasised. I argue for the need of government to emphasis iks in the universities to help the universities to be competitive abroad and address local challenges. Non-indigenous knowledge systems cannot offer total solution to challenges confronting many African countries Jowi, et. al. (2013). There is the need for the universities to utilise and change to use internationalization to develop locally relevant knowledge for local challenges.

In addition to government national policies, there is the need for institutional policies to complement national efforts to position the universities internationally through iks.

Conclusion

Universities in the study, in their efforts at internationalisation, are confronted with a lot of challenges including a sense of inferiority complex and dependency, North/South dichotomy and power imbalances, stigmatisation limited funding and research, and lack of national policies. These challenges tend to limit their ability to achieve their desired goals of making meaningful contribution at the international front. Whilst they find it difficult to meet the standards of the dominant neoliberal Western discourse of internationalisation, there is a challenge of the universities to offer a different understanding and vision of internationalisation.

Among others, the paper argues for the universities to contextualise internationalisation and strive to offer a distinctive knowledge systems from those of the West. The paper also argues for the universities to address the misrepresentation of African universities and also for a national internationalisation policy, which it is argued, will augment the internationalisation efforts of the universities.

The logo for the International Association of Agricultural Faculties and Schools of Education (iafor) is centered on the page. It features the word "iafor" in a light blue, lowercase, sans-serif font. The text is enclosed within a circular graphic composed of two concentric, slightly irregular arcs. The outer arc is a light blue color, and the inner arc is a light red color, creating a ring-like effect around the text.

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Improving Student Learning by Growing a Teaching and Learning Culture in an Engineering School

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Abstract

The problem addressed in this paper is that lecturers in schools of professional education such as engineering schools are typically disciplinary experts first, researchers second, and teachers third; they typically have limited knowledge about good educational practice unless the school provides measures to develop such knowledge and practice. To address this problem in a School of Chemical and Metallurgical Engineering at a South African university, a 3-part strategy has been devised and implemented to grow a culture of teaching and learning among lecturers in the school.

The first part of the strategy is to involve lecturers in educational research ‘mini-projects’ in collaboration with an experienced educational researcher. The lecturers are invited to identify and research an issue or concept which the students they teach typically struggle with. The second part involves formal input on educational theory and practice to the lecturers involved in the mini-projects and to any other staff in the school who wish to attend. The third part is to provide regular in-house colloquia as a forum for feedback from the mini projects and for discussion of any teaching and learning issues that may arise.

The rationale behind this strategy is, firstly, that it provides a means for drawing lecturers into the scholarship of teaching and learning by researching a teaching and learning issue that is highly relevant to them in their own teaching. It facilitates access to educational theory, research and practice through collaborations with educational researchers and involvement in teaching colloquia tailored to the school’s needs.

Keywords: Engineering education, teacher development, educational research

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Introduction

At least since 1995 there has been a growing, global shift from a teacher-centred approach to teaching in higher education to a more 'student-centred' approach (see, for example, Barr and Tagg, 1995; Entwistle, 2009). The former approach is a traditional one characterized by a model of teaching that emphasizes the transmission of knowledge from teacher to students, whereas the latter pays more attention to student learning and how teaching can facilitate that learning. One of the factors that constrains this shift in schools of professional education, such as in engineering education, is the fact that lecturers in these schools are usually hired on the basis of their disciplinary expertise first, their potential as disciplinary researchers second, and, a distant third, their teaching ability. Such lecturers typically teach as they have been taught which usually involved a traditional, teacher-centred approach. The typical outcome of this background, combined with heavy workloads and an emphasis on disciplinary research, is that lecturers in schools of professional education usually know little about education theory and pedagogical good practices and have a limited inclination to learn and develop the knowledge and practices needed for effective student-centred approaches to teaching. This creates difficulties for those in higher education who wish to enhance the quality of learning of their students by improving the quality of teaching in their institutions.

Various strategies for overcoming these difficulties have been adopted by institutions around the world. These include insisting that prospective academic staff have an appropriate educational qualification in order to be hired; that current academic staff take steps to obtain such qualifications; and that lecturers solicit student evaluations of their teaching on a regular basis. Other strategies include direct academic development measures such as hiring and empowering academic developers; implementing and empowering teaching and learning committees in schools; establishing some form of pedagogical academy (see, for example, Ryegard et al., 2010); including quality of teaching as a criteria in performance evaluations and promotion procedures; and, in one way or another, promoting SoTL – the Scholarship of Teaching and Learning. Authors of books on teaching in higher education typically devote much attention to the difficulties associated with enhancing the quality and effectiveness of teachers' teaching (see, for example, Ramsden, 2003, chapters 11 and 12, and Biggs, 2003 chapter 13).

The work presented in this paper presents a strategy that has some elements of the measures just described and is compatible with all such measures. Its focus is to grow a teaching and learning culture within a school of higher education taking into account, and adapting to, the constraints that make such a strategy difficult to implement. The strategy was initiated in 2014 as a teaching development project within a school of chemical and metallurgical engineering in a South African university and was funded by a grant from the South African Department of Higher Education. The project is a work in progress. This paper describes the evolution of the strategy and what the project has achieved to date.

Growing a Teaching and Learning Culture in the School

The concept of a teaching and learning ‘culture’ in a school implies that the work and social environment in that school is permeated by values and commitments that seek excellence in teaching (as measured by the quality of student learning it facilitates); knowledge and practices that promote and advance such excellence; and effective structures that support these. The design of the strategy to grow such a culture in the school was based on assumptions about what was needed to facilitate such growth and what would constrain it. The affordances of such growth that were considered to be particularly important were (1) regular exposure to key pedagogical principles through formal input; (2) personal engagement with relevant teaching and learning issues through appropriate educational research; and (3) communal engagement with relevant teaching and learning issues through such vehicles as seminars, group discussions and brain storming sessions. An additional affordance that was recognized was the genuine concern for students’ well-being and progress that was evident among the staff and the consequential positive attitude of virtually all of them with regard to the need to address teaching and learning issues in the school.

The chief constraints on the growth of a teaching and learning culture in the school were considered to be (1) the heavy workloads of the academic staff; (2) the high priority given to disciplinary research by staff in the school; and (3) the awareness on the part of most academic staff of considerable gaps in their knowledge and experience of pedagogical theory and practice and of the effort it would take to rectify this. It was assumed that these factors would constrain the motivation of staff in general to give much attention to the enhancement of teaching and learning in the school and the amount of time they would be prepared to devote to this. Accordingly, it was accepted that whatever measures were introduced needed to be relatively undemanding on lecturer’s time and workload.

The strategy that emerged from these considerations was to put in place a simple structure that would both grow and sustain the desired teaching and learning culture in the school. The structure had two components which became known as ‘mini-projects’ and ‘teaching colloquia’. Mini-projects consisted of small-scale projects designed to involve individual members of the teaching staff in educational research. To enhance the staffs’ motivation to be involved in a mini-project, it was designed with three features in mind: a focus on a difficulty or issue the staff member was facing in their own teaching; a collaboration with an experienced educational researcher who would provide the knowledge and expertise needed for conducting a scholarly educational investigation; and the intention that a scholarly publication would emerge from the project.

The second component of the structure – ‘teaching colloquia’ – was a system of regular colloquia each of which provided a forum for formal input on relevant teaching and learning issues; presentations and feedback from the mini projects; and group discussions and brain-storming on issues emerging from the formal input and the mini-projects. To enhance the staffs’ motivation to attend these colloquia they were designed with the following features in mind.

- *Duration*: each colloquium would be only a morning long. This was considered to be a reasonable balance between providing a worthwhile engagement with the theme of the colloquium and the requirement to minimize the time demand placed on staff.
- *Timing and frequency*: colloquia would be provided during teaching breaks so that no staff would be unable to attend because of teaching commitments. With a two semester system with mid-semester breaks, this implied four colloquia each year.
- *Quality venue and lunch*: to enhance the sense that the colloquia were important and significant events, they would be conducted in a quality conference venue and each would be followed by a quality lunch.

Execution of the Strategy

Mini projects

Over the period 2014 to 2016, 9 mini projects have been implemented, and interest in 3 others has been expressed. In addition, 2 follow up projects have been initiated. The majority of the projects were initiated by the 'in-house' educational researcher approaching a colleague with the question, "Is there a particular difficulty or issue you or your students are experiencing in one of the courses you teach?" In every case, the identification of such a difficulty was immediate and clear; in most cases it was instantaneous. What followed was a discussion of the nature of the difficulty and what the lecturer needed to find out in order to overcome that difficulty. The researcher then, in consultation with the colleague, worked up, through several iterations, a project design document.

Once agreement had been reached on the research design, the project was implemented. This process, and the discussions associated with it, not only developed a project design appropriate to the situation but also exposed the colleague to educational research practice and provided opportunities for informal mentoring on teaching, learning and educational research issues.

Two of the 11 mini-projects had a different genesis being initiated by lecturers approaching the 'in-house' educational researcher with an educational issue. In one case, the lecturer asked the researcher for advice regarding some conflictual difficulties with students that had arisen with regard to an innovation he had introduced in his course. In another, the lecturer had implemented an innovation and asked the researcher how he might investigate its effectiveness.

The intention of a mini-project was to generate evidence-based information that would provide pedagogically useful insights for the subsequent design, implementation and evaluation of an appropriate pedagogical modification or intervention. However, this proved to be too ambitious within the workload and time frame constraints of the educational researcher and of the staff researchers and, at the time of writing, few mini-projects had progressed beyond the research phase.

Teaching Colloquia

To develop and grow a teaching and learning culture within the school various types of communal engagement were seen to be necessary: formal input on teaching and learning issues; feedback from mini projects so that the findings could be appropriately disseminated and discussed among the staff; brain-storming of new or relevant ideas; and discussions on pertinent teaching and learning issues arising from the above. A 'teaching colloquium' was conceived as an appropriate forum to allow any combination of these types of activity. Four colloquia were offered each year, each with a specific theme, each presented and coordinated by one or more experts in the field. A total of 7 colloquia have been held to date.

Impact of the Strategy

The implementation of the teaching development strategy just described is still ongoing so only an interim assessment is possible at this time. To assess the impact of the strategy, academic staff were interviewed, the evaluation forms completed after each colloquium were analysed, and the ATI-R inventory, described shortly, was administered before and after the implementation of the strategy. The findings from these analyses are now presented.

Impact of the Mini-Projects

Lecturers involved in mini-projects were interviewed by an independent educational researcher in order to investigate their experience of their projects and what these had meant to them. The findings were as follows.

In the first place, it was clear that the research projects had helped the participating lecturers to gain deeper insights into their students' learning and the nature of the difficulties they were facing. In some cases, the lecturers were somewhat surprised by what they had found out, as the following interview extracts indicate.

I realised that what I thought they knew, they actually didn't know.
[The project helped me] to see what they [the students] were struggling with and understanding that. Normally they just say, "We don't understand, we don't know what's going on". But now I had an idea.

One participating lecturer went as far as saying that the research had made them aware that they, as lecturers, might be focusing on the wrong learning issue altogether: "I might be fixated on the fact that they can't see in 3D. In the meantime it might be something totally different. How do we know exactly what the problem is?"

Most participating lecturers reported gaining insights into the students' thinking. "Just to get an idea of what the students perceived and where they were, I learnt a lot from understanding the perspective from the students and how they actually think". One lecturer put it this way: "To listen to all those interviews and those questions that we set up for the students and to hear their response was helpful in the sense of seeing what they actually knew and also how they were dealing with the subject". Another pointed out how such understandings were useful pedagogically in that the research

had shown that “there were these different steps in understanding [the topic ... and that appreciating this had been] very helpful in terms of developing the course so that one could aim it in the direction that people will not only understand, but also apply the knowledge.”

All the participating lecturers involved in the mini-projects reported appreciating the value of educational research of the kind they had been conducting because “otherwise”, as one lecturer commented, “one just speaks about things that you don’t really know [about]”. Another put it this way: “I think if you have a course where there is a specific issue, a specific part of the course that’s not handled as well as the others, then this [i.e. educational research] is definitely very valuable”.

With regard to the structure of the mini-project and how they were organized, several participating lecturers commented on the role of the education researcher colleague in their project. Most mentioned that just having an outside person as a sounding board was very helpful. One put it this way: “I think we all battle with time, so I think it’s quite nice to have somebody else looking at all the results.” Another went further to confess their own lack of knowledge in educational theory and best practice and how the colleague’s “involvement as the education expert was extremely helpful. [...] Beforehand I knew I didn’t know much about education, but I realised more that I really don’t know so much and you need somebody to guide you with that background”. The following extract summarizes the sentiments of all the participating lecturers interviewed.

I think it was a good exercise to focus on one specific area that I knew was a problem for quite a few of the students. It meant there was somebody that I could bounce some ideas off, not that [X] necessarily had the specific answers for me, but just in talking to him I was then able to think through what could help them, what are the different options I could try, and getting an “OK that sounds like a good idea” kind of response, worked quite well.

Impact of the Teaching Colloquia

Three perspectives on the impact of the teaching colloquia were available: attendance at the colloquia; the evaluation forms completed by the attendees of each colloquium; and interviews of lecturers conducted by an independent educational researcher sometime after the seventh colloquium.

Figure 1 shows how many colloquia each of the staff in the school attended. As can be seen, of the 30 members of staff, 37% attended 3 or more colloquia while 23% did not attend any. The most common reason for not attending a colloquium was the business of the staff and prior engagements. Some lecturers only attended colloquia where the topic was of particular interest to them. Two or three of the staff showed little interest in attending any of them.

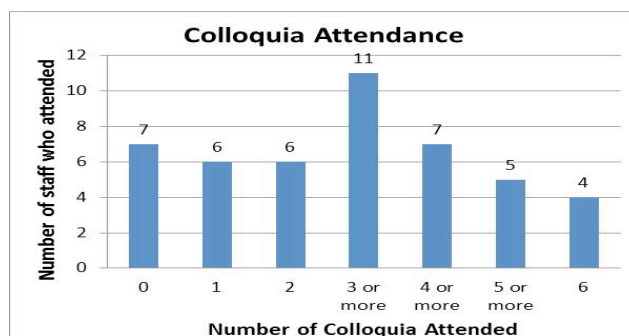


Figure 1: Staff Attendance of the Teaching Colloquia

The evaluation forms completed by each of the colloquium attendees showed that they had found them to be interesting and valuable, the discussions and interactions emerging from the formal input being particularly well appreciated. The interviews of staff were more specific in their endorsement of the colloquia, as the following extracts indicate.

It was such a privilege to get input from these experts, people who are at the forefront of what they were doing in terms of the education stuff. It was very good.

Just in general I found them also very useful and some of them very exciting in terms of the new ways you can apply [the ideas to your teaching. ...] I think it's also important for us, as engineers, to be exposed to it at a more frequent level.

And they [the teaching colloquia] were all valid and applicable. So that's the one [i.e. the colloquium on problem-solving] that really stands out for me and I think they're very worth it. I would hope that they continue.

The following comment, comparing the teaching colloquia to the 2-year, part-time diploma in teaching in higher education offered by the university, was particularly interesting.

My other colleagues are doing the whole course – the post graduate diploma – and I really don't have time for that. This [the teaching development strategy] is a wonderful alternative and something that I can cope with. *(Interviewer: And it doesn't over-burden you in terms of your teaching load? Not at all.*

To conclude this section, it is interesting to note that lecturers from the school constituted the majority of engineering registrations for the university's post graduate diploma in higher education which was first offered in 2015. In 2015, 4 out of the 6 registrations from the Faculty of Engineering came from the school. In 2016, 3 out of 4 were from the school. The extent to which the registrations from the school were influenced by the teaching development strategy described in this paper is currently being investigated.

Overall Impact

The impact of the teaching development strategy as a whole was evaluated using the ATI-R instrument – the Approaches to Teaching Inventory (Revised) (Prosser and Trigwell, 2006, Trigwell et al., 2005). The instrument consists of 22 questions on a 5 point Likert scale. It generates two scores: the CCSF score which gives an indication of the extent to which a lecturer tends to adopt a Concept-Centred, Student-Focused approach to teaching in a given context; and the ITTF score which gives an indication of the extent to which a lecturer tends to adopt an Information-Transfer, Teacher-Focused approach to teaching in that context. Each score is the numeric mean of the Likert responses to the questions on each scale with 1 indicating a very negative response to the question and 5 indicating a very positive response.

Trigwell and Prosser (Prosser and Trigwell, 1999, 2006, Trigwell et al., 2005) have reported on work which has shown a correlation between the approaches to learning which students adopt and the approaches to teaching which lecturers use. According to this correlation, if a lecturer tends to adopt a concept-centred, student-focused approach to teaching, the students are more likely to adopt a deep approach to learning and to focus on understanding and mastering the topic. However, if lecturers tend to adopt an information-transfer, teacher-centred approach to teaching, then students are more likely to adopt a surface approach to learning, giving more attention to memorization than to the understanding and the mastery of the topic being ‘taught’. Accordingly, an increase in a lecturer’s CCSF scores suggests a shift in teaching approach that should correlate to some degree with improvements in student learning – i.e. students adopting deeper approaches to learning in the topics taught by that lecturer. Similarly, a decrease in a lecturer’s ITTF scores should correlate the same way in that the students are less likely to adopt a surface approach to learning.

The ATI-R inventory was administered to the staff in the school in 2014 before the teaching colloquia began. It was administered again late in 2016 after the 7th colloquium and before the staff were interviewed. Because a lecturer’s approach to teaching is context dependent and the teaching contexts of each staff member in the study were not the same, the ATI scores that are most meaningful are the pre-post data for each lecturer – i.e. the change in their ATI scores from the first to the second administration of the inventory; this makes each lecturer their own control.

A full statistical analysis will be conducted on the ATI-R data once all the questionnaires have been returned. The following findings are therefore only tentative. The results from pre-post administration of the ATI-R instrument are summarized in Figures 2 and 3. In each plot, the shift in a lecturer’s score from the first (2014) to the second (2016) administration of the instrument is indicated on the Y axis. These shifts are plotted against the number of teaching colloquia attended (Figure 2) and, in Figure 3, the number of times staff participated in one of the teaching development offerings – i.e. the number of times they attended a teaching colloquium and whether or not they conducted a mini-project. (Note that the inclusion of mini-project with colloquia attendance in Figure 3 is a somewhat artificial device in that involvement in a mini-project is likely to have a bigger impact on a lecturer’s pedagogy than attendance of one colloquium.) Although the significance of the results has still to be evaluated, some clear trends are evident. In each figure, the trend lines (linear) suggest that participation in the colloquia and mini-

projects has had the effect of shifting the teaching approach of lecturers away from information-transfer, teacher-centred approach and towards a concept-centred, student-focused approach.

Figure 4 shows the impact more clearly by plotting the shift in CCSF scores (2016 score minus the 2014 score) against the 2014 (Pre) CCSF score. The data is plotted this way to control for lecturers' initial CCSF scores because the potential for a lecturer's score to increase inherently decreases the greater their 2014 Pre score was. The left-hand plot shows that engagement with either a mini-project or the higher education diploma correlates with a significant increase in a lecturer's CCSF scores. The right hand plot shows that attending 3 or more teaching colloquia had a similar impact.

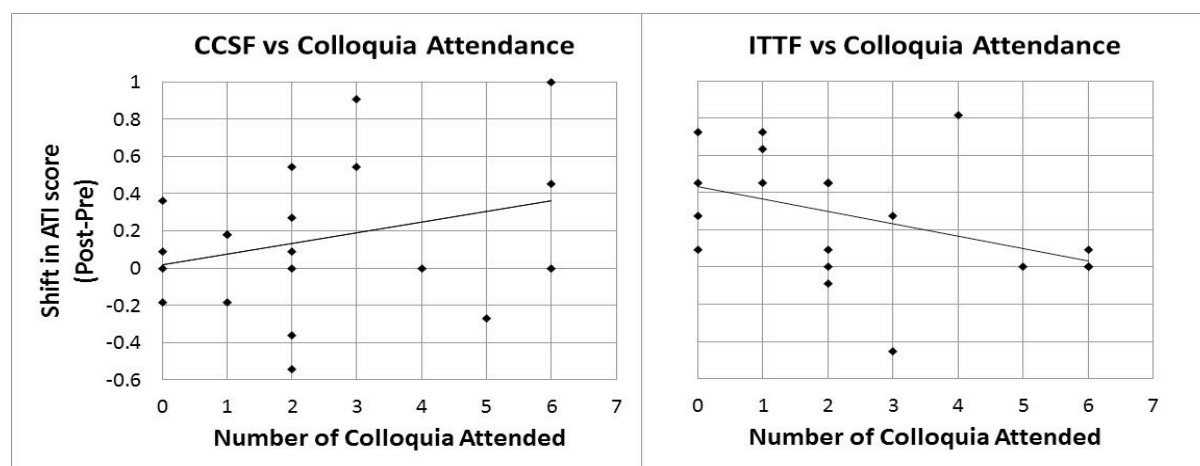


Figure 2: Shifts in Lecturers' ATI Scores (Score 2016-Score 2014) vs Colloquium Attendance

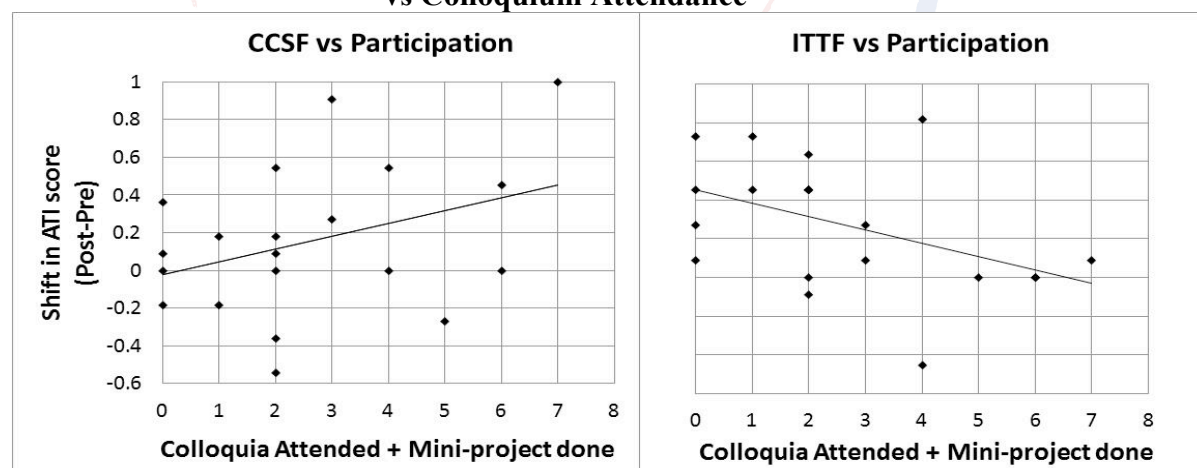


Figure 3: Shifts in Lecturers' ATI Scores (Score 2016-Score 2014) vs Participation in Colloquia and Mini-Projects

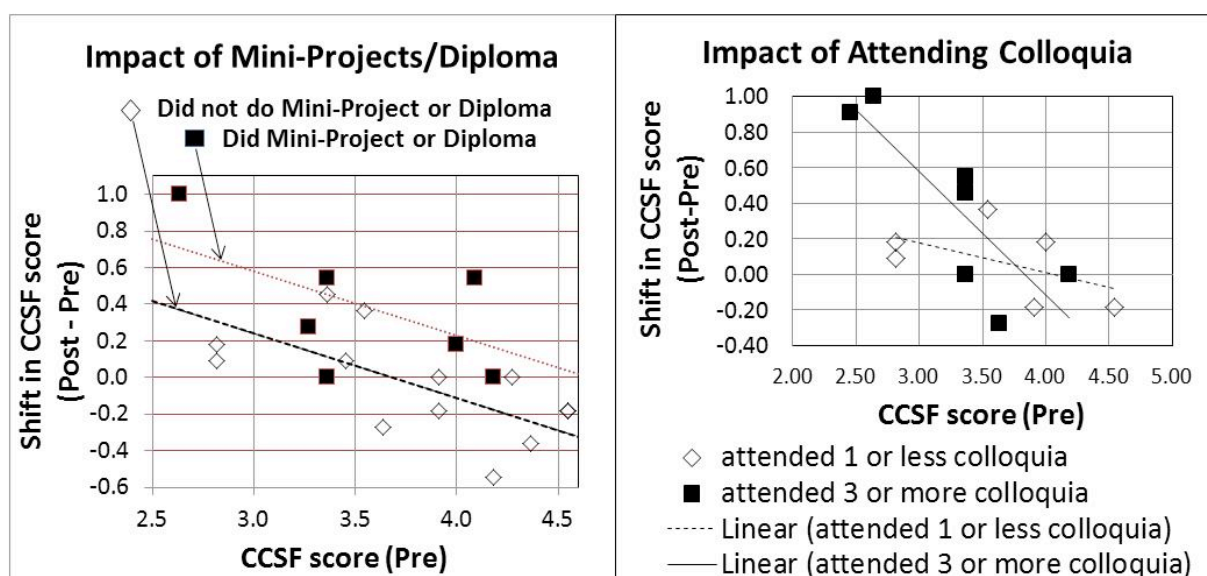


Figure 4: Impact on CCSF Scores (Score 2016-Score 2014) of Attending Colloquia or Engaging with Mini-Projects or the Higher Education Diploma

Discussion

The evaluation of the impact of the teaching development strategy has been and is being conducted by addressing four questions. Preliminary answers to these questions are as follows.

- 1) *How was the strategy received by the lecturers and how might it be improved to enhance its impact?* It is quite clear from the lecturer interviews and from the colloquium evaluations that both the teaching colloquia and mini-projects were very well received by those who participated in them. Even lecturers who did not participate in any of the offerings were positive in their opinion of the general value of the strategy.

With regard to the general structure and implementation of the strategy and how these might be improved, the following points were noted. Attendance of the teaching colloquia was disappointing. At best, only about a third of the staff attended 3 or more of the colloquia and attendance at individual colloquia was almost always well less than half the staff complement. Attendance was greater when the topic was of more immediate interest to the staff – i.e. the colloquia on the flipped classroom, teaching problem solving, and teaching large classes. It therefore seems that in order to increase attendance, the colloquia should be framed and promoted within the school around topics that have immediate general appeal and that the more mundane but critically important issues such as educational research, pedagogy, assessment and curricula need to be woven into the fabric of those colloquia rather than as stand-alone topics.

With regard to improving the mini-project component of the strategy, the primary issues have to do with execution rather than structure. The combination of the heavy workloads of the participating lecturers, the heavy involvement of the education researcher colleague in each project, and the number of projects being run concurrently resulted in a fragmentation of the time devoted to each project

and in the giving of feedback to the lecturers. In addition, a longer view of these projects seems appropriate so that the research investigation, the implementation of a pedagogical intervention, and the evaluation of the impact of that intervention should be seen as successive phases of a 'macro-project' each with its own time frame and resource budget.

- 2) *Did lecturers become more aware of how students were responding to their teaching?* It is quite clear from the lecturer interviews that the answer to this question is in the affirmative. Lecturers reported gaining insights into how students "were dealing with the subject" and how they were 'thinking' in that subject. One lecturer reported discovering that what they thought the students knew they actually didn't. In a phenomenographic project, the findings revealed that among the students there was a progression of increasingly more sophisticated conceptions about the topic. The lecturer reported finding this to be particularly helpful in guiding a redesign of the pedagogy he used.
- 3) *Did lecturers become more aware of the nature of their own teaching and how it could be modified to improve student learning?* Again the answer to this question is in the affirmative. This is evidenced by the previous lecturer's comment emanating from the phenomenographic project and, in addition, by the statements in the lecturer interviews cited earlier which reported that the inputs in the colloquia were "very useful" and some were "very exciting" in terms of learning new ways in which lecturers could 'teach'. Other evidence is found in lecturer statements that expressed appreciation about how aspects of the strategy had helped them to become better informed about education theory and practice.
- 4) *Did teaching change in any way and, if so, how?* The ATI-R instrument administered before and after participation in the teaching colloquia and mini-projects has shown trends that all suggest that this participation had the effect of shifting the teaching approaches of participating lecturers away from information-transfer, teacher-focused approaches towards more concept-centred, student-focused approaches. The significance of the observed trends must still be investigated because there is some variability in the data and the sample size was small. However, the trends do align with the indications from the evidence given in the two previous points. According to findings in the literature (see for example Prosser and Trigwell, 2006, Trigwell et al., 2005, Prosser and Trigwell, 1999) these trends generally correlate with improvements in student learning.

Conclusion

The work presented in this paper addressed the common problem that lecturers in engineering and professional education programmes are usually not conversant with education theory and best practice. The approach to remedying this situation in the school was to grow a teaching and learning culture within the school by involving lecturers in educational research, and, through regular teaching colloquia, providing formal input on relevant teaching and learning issues and also a forum for mutual interaction and discussion on teaching and learning. This strategy has been well received by the academic staff. Evaluations of the impact of this strategy all point to its effectiveness in increasing lecturers' awareness of relevant educational theory and best practice and in shifting their approaches to teaching in directions that align with

fostering improved student learning. However, the growth of a culture of teaching and learning in the school, as evidenced by participation in the teaching colloquia and mini-projects, has been slow. This is not surprising given the workloads of lecturers and their commitment to disciplinary research. Nevertheless, continued and perhaps accelerated growth is anticipated as the strategy is refined and the positive impacts of participation become more evident to the staff as a whole.

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Revisit the Hospitality Law Curriculum

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Abstract

Traditionally, hospitality education emphasizes on vocational training. Schools tend to focus on producing skilled personnel for the industry, where the skills can be instantly applied on the first day of the job. As a result, very limited universities offer law subjects in the hospitality program in Hong Kong. This exploratory study aims to examine from the students' perspective (1) the importance of the law subject in the hospitality program curriculum, (2) whether the law subject can equip students to handle the legal issues they face in the workplaces and (3) what legal topics should be further strengthen in the law subject. Survey results concluded that a comprehensive hospitality curriculum should include law subject. Students found the law subject useful and practical for their career developments. They also considered "employment law" crucial and useful to their workplaces and expressed the need to study the topic further. Considering the scarcity of institutions offering hospitality law subjects in Hong Kong, these results provide the academic community with insights into possible areas for improvement and some new perspectives in hospitality and tourism program planning.

Keywords: Hospitality and tourism education; legal issues; curriculum.

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Introduction

Tourism is the one of the four key industries in Hong Kong, the valued added of the tourism industry has grown more than double from US\$ 5,731 million to US\$ 13,577 million during the period from 2008 to 2013. The number of employees in the industry has likewise increased from 194,800 to 269,700 in the same period (Census and Statistics Department, 2014). The role of higher education in hospitality and tourism, particularly in providing relevant trainings to the right talents, is crucial to the aim of meeting the increasing demand of the tourism industry.

The educational institutions in Hong Kong started offering higher education programs in hospitality and tourism in the mid-1990s. Lo (2005), who presented a comprehensive revision on the development of hospitality and tourism higher education in Hong Kong, pointed out that the School of Hotel and Tourism Management of the Hong Kong Polytechnic University (PolyU) has modified the curricula in 2005 to increase competitiveness. Currently two universities in Hong Kong offer government-funded undergraduate programs in hotel and tourism management, namely, PolyU and The Chinese University of Hong Kong (CUHK). PolyU offers compulsory ethics subject, whereas CUHK offers compulsory law subject. As for the non-government-funded undergraduate programs, five institutions offer honors degree in hospitality or tourism management. However, only the School of Professional Education and Executive Development, The Hong Kong Polytechnic University (PolyU SPEED) has assigned compulsory status to the law subject. The other four institutions do not offer hospitality law subject.

Previous studies concluded that the law subject is an important component of good hospitality curricula. As stated by McConnell and Rutherford (1988), confronting legal risks are inevitable in the hotel and restaurant management. The number of law suits encountered by employers has drastically increased over the years. Sherwyn (2010) pointed out that in 1989, approximately 120,000 discrimination charges were filed; and in 2008, that number exceeded 190,000, an increase of almost 60%. In such cases, staff members with a certain level of legal knowledge can minimize company loss and liability.

In designing subject curricula, integrating the stakeholders' feedback is crucial. This paper reveals students' opinions on the hospitality law subject, the legal issues important to them and their workplaces, the practicality of the subject contents, and finally, what students want to learn. This paper helps schools to identify the strengths and weaknesses of the hospitality law curriculum in the hospitality and tourism programs. The results can be used for further improvement on the subject contents and curriculum planning.

Literature Review

Butler (1999) and Morgan (2004) stated that not too many hospitality and tourism degree programs offer law subjects; one of the major reasons is the tourism education traditionally emphasizes on technical/vocational training. Educators tend to focus on training skilled staff for the employers, where the skills can be immediately practiced on

the first day of the job. To increase the employability of students, subjects tend to focus on facility management, human resources management, event management, catering operations, wine and spirits studies, marketing management, and accounting and finance (Busby, 2003). Studying the legal issues in the industry is seemingly unimportant to schools because knowledge from these issues is not immediately applicable.

On the contrary, Whitney (1989), Martin (1998) and Schrag (1993) established the importance of ethics elements in the hospitality curriculum. Lundberg (1994) examined the topic from students' perspectives and found that students in hospitality program strongly agree that ethics should be taught in their programs of study, and that the subject has brought about positive effects on their careers. Yeh et al. (2005) further studied how hospitality educators perceive ethics knowledge and the needs of hospitality students and found that educators believe the importance of ethics to hospitality students; interestingly, many hospitality programs have not incorporated and implemented ethics education into their curricular, although faculty members have an impression that they have.

Other than the importance of ethics elements in hospitality programs, the effective pedagogical approach to ethics teaching has been discussed in previous studies. McMinn (1988) concluded that real life case studies seem to be the most effective for teaching ethics. Watras (1986) suggested that teaching materials should be based on some real-life dilemmas, and group discussions are effective in learning ethics. Pratt (1993) stressed that understanding the values and principles put forth in the ancient ethics theories is important to students; such understanding is also important to educators because it assists them in producing ethical industry participant. Jaszay (2002) examined a philosophically justified model for teaching ethics in hospitality programs and provided suggestion on how to teach ethics more effectively.

"What to teach" is another major research direction. Weaver et al. (1997) studied students' perception of ethical issues in hospitality industry and found that the conditions of employment, solid waste disposal and sexual harassment are the most important ethical issues. Vallen and Casado (2000) developed 12 core ethical principles and invited general managers in the hospitality industry to rank them; they found that leadership, accountability and commitment to excellence are the three most important ethical principles in the successful operation of a hotel. Yeung (2004) conducted a survey with hospitality employees as respondents to identify the importance of 39 ethical issues in the hospitality industry and concluded that the two most important issues are "theft of company property by employees" and "sexual harassment on the job". He recommended that schools should consider including ethical issues in the curricula.

Comparatively, only a few studies have focused on legal issues. McConnell and Rutherford (1988) examined the law component of various hospitality curricula in the US and found that the areas of law that students ranked as most important are "protection of the person and property of guests" and "the legal duties and responsibilities of innkeepers and restaurants." Moreover, "employment law" was assigned with high importance in the study. The authors concluded that "since all the programs surveyed acknowledged the importance of this legal background, the only remaining question is why a third of the

programs surveyed either assigned elective status to hotel and restaurant law or did not offer such a course at all.” The situation is similar with that of Hong Kong; although most people would agree that legal knowledge is important to students, not too many schools offer hospitality law courses.

Chathoth & Sharma (2007) studied the core curricula of 44 hospitality and tourism management programs within the US and found that 75% of the programs offer hospitality law courses. Wang et al. (2010) compared the tourism curricula in Australia and China. They found that out of the 7 universities in Australia, only 2 offered tourism and hospitality law subjects. Among the 43 institutions in China, 32 offered business law courses, and none offered tourism and hospitality law.

One of the reasons why limited studies have examined the legal components in the hospitality and tourism curricula is that laws and regulations are tailor-made by countries to suit their local needs; therefore, legal components are not as universal as ethical issues. Consequently, our knowledge of the law subject curricula in hospitality and tourism programs is limited. Based on our literature review, this is the first paper to study the hospitality law curriculum in Hong Kong.

Methods

Questionnaire Development

The questionnaire consists of four sections. Section I presents the profiles and backgrounds of the respondents and the companies that they worked for. Seven close-ended questions were asked to formulate the profiles that reflect age, gender, position, duration of employment, employers' business nature, company branding, and affiliation.

Section II presents the four questions used to derive the views of the respondents on (1) whether hospitality law should be assigned as a compulsory subject in the hospitality and tourism management programs; (2) the importance of law subject compared with other subjects; (3) whether there are any important legal issues in their workplaces that they did not learn in schools and (4) if they have encountered more than one legal issue in their workplaces. Section III presents the answers of respondents in relation to all possible legal issues they have encountered in the workplaces.

Section IV presents the sixteen legal issues adopted from the study of McConnell and Rutherford (1988) and the law subject contents of the hospitality and tourism program of PolyU SPEED. The 16 issues are “duty to protect guests,” “duty to protect guests' properties/belongings,” “liability of the hotel/restaurant/shop,” “employment law,” “torts,” “contract of sales of goods,” “breach of business contract,” “business ethics,” “crime and criminal responsibility,” “agency relationship,” “insurance law,” “hygiene and safety,” “intellectual property,” “tourism regulation related to China,” “working with attorney/lawyer,” and “company law.” Respondents were asked to rate the importance of these issues based on (1) their perceptions and (2) their employers' emphases. Five-point Likert-type scales were used, where 5 means most important and 1 means least important.

Data Collection and Analyses

Hospitality and tourism undergraduate students of PolyU SPEED who have completed the subject “Legal and Ethical Aspects in Hospitality and Tourism Industry” composed the target population. The participants must have work experience in the hospitality and tourism sector. Students without work experience in the industry were disregarded.

The survey was conducted in December 2013. From the total of 260, 159 completed questionnaires were returned, indicating a 61.15% response rate. Descriptive analysis was applied to explore the respondents’ characteristics and their views on the law subjects. To measure the discrepancies between respondents’ perceptions and their employers’ emphases on the 16 legal issues, the mean values of the two groups were compared using the t-test analysis.

Findings and Implications

Descriptive profile of respondents

Table 1 shows the descriptive profiles of the respondents and their employers. Among the 159 respondents, 22.64% were male and 77.36% were female. In terms of the age distributions, 76.73% of respondents were in the 18–22 age group, 22.64% were in the 23–27 age group, and 0.63% of respondents were between 28–32 years old.

With regard to the nature of the job, 35.22% of the respondents worked in the frontline areas (waiter/waitress/captain), 23.90% in the customer services/host positions, and 13.84% in sales. Moreover, 56.60% have worked for more than one year in their current/latest positions, 16.99% have worked for 3–6 months, 15.09% have worked for 6–12 months, and 11.32% have worked for less than 3 months.

As for the company characteristics, 24.53% of respondents worked at hotels whereas 19.50% worked at restaurants; 15.71% at retail sectors; 14.47% at club houses, and 13.84% at theme parks and travel agencies. Among the companies, 52.20% were international-branded enterprises and 47.80% were local companies. If we look further into the company background, 62.89% were chain managed and 37.11% were independently managed.

Table 1
Characteristics of Respondents and Their Employers

Respondent Characteristics	Number	%	Company Characteristics	Number	%
<i>Gender</i>			<i>Hospitality Sector</i>		
Male	36	22.64	Hotel	39	24.53
Female	123	77.36	Restaurant	31	19.50
			Club House	23	14.47
<i>Age</i>			Theme Park & Travel	22	13.84
			Agency		
18-22	122	76.73	Retail	25	15.71
23-27	36	22.64	Others	19	11.95
28-32	1	0.63			
<i>Position</i>			<i>Company Branding</i>		
Sales staff	22	13.84	Local	76	47.80
Customer Service/ Host	38	23.90	International	83	52.20
Waiter/Waitress/Captain	56	35.22	<i>Affiliation</i>		
Others	43	27.04	Independent	59	37.11
			Chain	100	62.89
<i>Duration of working at the latest/current job</i>					
Less than 3 months	18	11.32			
3-6 months	27	16.99			
6-12 months	24	15.09			
More than 1 year	90	56.60			

Importance of the Hospitality Law Subject

Respondents were asked to express their views on the law subject offered at the university. Table 2 exhibits the results. In the first question, respondents were asked to give their opinions on whether the law subject should be assigned under the “compulsory category,” “elective category,” or “neither.” Out of 159 respondents, 110 (69.18%) chose “compulsory,” 37 (23.27%) chose “elective,” 4 (2.52%) chose “neither,” and 11 (5.03%) did not have comments.

In addition, respondents were asked to state whether they agree that the law subject is the most important subject they have taken. The 5-point Likert-type scales were used, where 5 means strongly agree and 1 means strongly disagree. The mean was 3.69; and 62.89% (100 out of 159) respondents agreed and strongly agreed with the statement.

As previously mentioned, only two among the seven higher education institutions in Hong Kong and not one among the 43 institutions in China offer compulsory hospitality law subjects and compulsory tourism and hospitality law subject, respectively (Wang et

al., 2010). In light of this finding, the teaching scholars could consider establishing the hospitality law as a compulsory subject in the hospitality and tourism programs.

Table 2
Respondents' Views on the Importance of the Law Subject

Questions	Compulsory (%)	Elective (%)	Neither (%)	N/A (%)
Q1. In your opinion, the law subject should be assigned to which category?	110 (69.18)	37 (23.27)	4 (2.52)	8 (5.03)
	Mean	Median	SD	
Q2. Among all the subjects you have taken, the law subject is the most important.	3.69	4	0.65	
Q3. There are some legal issues, you think they are important in your workplaces, but you did not learn in class.	2.90	3	0.90	
Q4. You have encountered at least one legal issue in your workplace.	3.52	4	0.73	
Note: For Q2 to Q4, 5-point Likert-type scales are used and given the following corresponding values: 1 = "Strongly disagree"; 5 = "Strongly agree".				

Topics that Need Further Enhancements

21% respondents agreed with the statement, "There are some legal issues; you think they are important in your workplaces, but you did not learn in class". In order to further investigate, respondents who agreed with the statement were asked to specify those issues. Their responses are presented in Table 3. 7 respondents wrote "labour law/employment law/human resources issues," 4 wrote "hygiene/safety/health issues," 3 wrote "guests' privacy issues," 2 wrote "insurance issues," and 1 wrote "guests complaint/media." These results reveal that more legal contents should be explored in those areas.

It is worth to note that except for "guests complaint/media," the existing law subject has covered "labour law," "hygiene and safety," "duty to protect guests," and "insurance law." These findings exhibit that students found these topics crucial and useful to their workplaces and they wanted to learn more. Therefore, the school might need to revisit the curriculum and consider putting more emphases on these topics in the future. Furthermore, legal issues such as "employment laws" and "hygiene and safety" can be introduced and embedded in other courses as well, such as human resources management; and food hygiene & safety subjects.

Table 3
Legal Issues that Students Want to Learn More

Legal issues	No. of respondents
Labour law / Employment law / Human resources issues	7
Hygiene / Safety / Health issues	4
Privacy issues	3
Insurance issues	2
Guest complaint / Media	1

Legal Issues Respondents Encountered in Workplaces

Out of 159 respondents, 79 shared that they have encountered legal issues in workplaces. As shown in Table 4, students have a very wide range of experiences in handling legal issues. Among the 79 respondents, 26 expressed that they have encountered issues in “employment law,” 19 have experiences in “hygiene and safety issues,” and 9 have handled issues related to “protecting guests.”

As mentioned previously, only students with relevant work experiences were invited to participate in the survey. Therefore, all 159 respondents should have experiences in reading, signing, or even negotiating employment contracts with the employers. Interestingly, 26 of them have specified that they have encountered legal issues in relation to the employment law; this implies that they might have difficulties in understanding employment contract terms; or they do not have sufficient legal knowledge to protect themselves in the negotiation processes or daily work environments. Bear in mind that these students were all full-time students; thus, their job experiences were related to part-time or summer work set up. Compared with the full-time position contracts; temporary employment contracts are rather informal and simple. Therefore, students might have felt that their labour rights were not fully protected or that employers might have taken advantages of them.

Table 4
Legal Issues that Respondents Encountered in Workplaces

Legal issues	No. of respondents	%
Employment law / Labor law	26	32.91
Hygiene and safety	19	24.05
Duty to protect guests	9	11.39
Contract law / Contract of sales of goods	6	7.59
Insurance law	4	5.06
Crime and criminal responsibility	3	3.80
Food / wine license	3	3.80
Duty to protect the company	2	2.53
Sexual harassment	2	2.53
Discrimination	2	2.53
Copyright	2	2.53
Agency relationship	1	1.27
Total	79	100

Importance of Legal Issues: Students' Perceptions vs. Reality

Respondents were asked to rate the sixteen legal issues based on their (1) perceptions and (2) employers' emphases, results are presented in Table 5. The larger the mean values are, the higher is the importance of the issues. Among the sixteen legal issues, "employment law" has the highest mean (4.46) and more than 90% of the respondents think that "employment law" is a very important area of study. The major reason is students concerned about their rights, particularly with laws that pertain to wages, working hours, compensations and benefits.

"Hygiene and safety" (mean=4.20) and "duty to protect guests" (mean=4.14) are the second and third most important issues on the list. These findings are similar with the results of McConnell and Rutherford (1988) and Sherwyn (2010). We believe it is mainly because these issues are closely related to the job natures of the respondents. As discussed above, most of the respondents were frontline employees, 35.22% of whom were waiters/waitresses/captains and had to deal with customers on a daily basis. Therefore, issues related to customers' well-being were their major concerns.

On the contrary, the least important legal issues are "working with attorney/lawyer" (mean=3.22), "tourism regulation related to China" (mean=3.32), and "company law" (mean=3.51). These topics are implied to be too remote from the students' current study and work lives. They might become more important when the respondents are promoted to the management levels in the future.

Students pointed out that their employers highly emphasize “hygiene and safety” (mean=4.03), “duty to protect guests” (mean=3.88), and “duty to protect guests’ properties/belongings” (mean=3.78). These findings echo those of McConnell and Rutherford (1988), which showed that the greatest legal responsibility companies have to deal with the industry are related to their liabilities for guest safety and the protection of guests’ properties. These rankings are reasonable and predictable. As for the legal issues that companies emphasize less, the least important issues are “working with attorney/lawyer” (mean=2.83), “tourism regulation related to China” (mean=2.97) and “agency relationship” (mean=3.25). The results are closely similar to those of students’ perceptions.

Table 5
Students’ Perceptions and Companies’ Emphases on Legal Issues

Legal Issues	Students’ perception		Companies’ emphasis		t-value
	Mean	SD	Mean	SD	
1 Duty to protect guests	4.14	0.78	3.88	0.97	2.53*
2 Duty to protect guests’ properties / belongings	3.99	0.79	3.78	0.96	1.84
3 Liability of the hotel / restaurant / shop	3.93	0.79	3.76	0.80	3.92**
4 Employment law – e.g. Compensations / benefits	4.46	0.71	3.66	0.98	10.33**
5 Torts – e.g. Nuisance, disturbance	3.80	0.81	3.30	0.87	6.74**
6 Contract of sales of goods	3.78	0.82	3.53	0.91	2.70**
7 Breach of business contract	3.92	0.85	3.48	0.93	5.92**
8 Business ethics –e.g. Pricing discrimination	3.76	0.93	3.41	1.06	3.93**
9 Crime and criminal responsibility	4.07	0.83	3.75	1.05	4.63**
10 Agency relationship	3.60	0.89	3.25	0.94	5.00**
11 Insurance law	3.90	0.88	3.44	1.03	7.00**
12 Hygiene and safety	4.20	0.88	4.03	0.94	2.26*
13 Intellectual property – e.g. Trademark / copyright	3.70	0.92	3.50	1.10	3.14**
14 Tourism regulation related to China	3.32	0.97	2.97	1.20	4.07**
15 Working with attorney / lawyer	3.22	0.89	2.83	1.04	5.68**
16 Company law – e.g. Partnership and corporation	3.51	0.93	3.32	0.96	3.20**

* $p < .05$, ** $p < .01$

The Practicality of the Hospitality Law Subject

In order to examine if the hospitality law subject curriculum is closely related with the industry needs, t-test analysis was used to compare the mean differences between respondents' perceptions and companies' emphases on the importance of the sixteen legal issues. The larger the t-values mean is, the greater the discrepancies between students' perceptions and realities. The results are presented in Table 5.

Overall results indicate that respondents gave higher rankings to the legal issues based on their perceptions than based on their employers' emphases. According to their perceptions, the means of the sixteen legal issues ranged from 3.22 to 4.46; and if the issues were ranked according to their employers' emphases, the means ranged from 2.83 to 4.03. All the mean differences were statistically significant, except that of "duty to protect guests' properties and belonging" ($t\text{-value} = 1.84, p > .05$). The most significant mean differences were those of "employment law" ($t\text{-value} = 10.33, p < .01$), "insurance law" ($t\text{-value} = 7.00, p < .01$), and "tort" ($t\text{-value} = 6.74, p < .01$).

These results reveal two implications. First, the ranking orders between the two groups are very similar, which means issues that are important according to the students' concepts are also important to their employers. The current hospitality law subject curriculum is well-designed because the subject contents reflect industry needs. Therefore, the subject should be helpful in equipping students for their future work environments.

Second, data show that "employment law" has the most significant mean difference, suggesting the students believe that the "employment law" is the most important issue. However, their employers do not share the same level of concern on the issue. Although "employment law" is one of the topics of the law subject, the students still explicitly expressed their interest to learn more about the topic. This suggests the insufficiency of the existing coverage on the topic.

Conclusion

Limited institutions offer law subject in the hospitality curriculum in Hong Kong. This exploratory study investigated (1) the importance of the law subject in the hospitality program curriculum, (2) whether the law subject can equip students to handle the legal issues they face in the workplaces and (3) what legal topics should be further strengthen in the law subject. Survey results showed that the current hospitality law subject curriculum is well-designed because the subject contents reflect industry needs. Students' responses supported the practicality of the hospitality law subject contents. 62.89% of students expressed that the law subject is the most important subject. 69.18% of students believed that the law subject should be a compulsory subject. Out of 159 respondents, 79 shared that they have encountered legal issues in workplaces. And most of them have faced "employment law" issue, and they explicitly stated the need to study the topic further.

This study has two limitations. Firstly, the study focused on students' perspectives, but did not include another major stakeholder, the industry (future employers). Future research can investigate the future employers' perception to establish if the results are the same. As most of the students were frontline staff at the junior level, their exposures to legal issues in their work place were limited by their job duties and nature of their work. Therefore, their perceptions on employers' emphases might be different from the employers' actual emphases. Secondly, this study focused only on one particular institute in Hong Kong; thus, future research should be conducted when more institutions are already offering law courses in the hospitality and tourism programs. Hopefully the larger sample size and more diversified respondents' backgrounds could provide further insights into the effectiveness of teaching the law as a subject in hospitality and tourism programs.

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Applying Wearable Technology in English Adaptive Learning and Evaluating Learning Performance

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Abstract

Wearable technology is predicted as the next big shift in technology and innovation. The applications of wearable technology in teaching and learning are expected to accelerate learning performance in the education context. For example, language learning or musical instrument playing requires a lot of hours practice to create the ability and accumulate skills. Whether wearable technology can accelerate English as a second language learning (ESL) and improve learning performance has been considered as an interesting and important research question. The objective of this paper is to develop an adaptive learning system which applies wearable technologies, MozBii-a color-ware tool, with Electroencephalography (EEG) to examine ESL learners' performance, experimenting with one hundred and six elementary students. We expect our proposed multi-sensory tangible approaches help the students in their ESL's learning performance. The findings of this paper contribute to the practice of wearable technology applications in ESL learning and teaching.

Keywords: English as a second language (ESL), Wearable Technology, Multi-sensory Tangible Learning, Adaptive Learning, Learning Performance

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Introduction

Technology makes good quality of human life (Park & Jayaraman 2003), it has expanded to different fields and has predicted that will grow rapidly from 2013 to 2019 at the technology market. Recently, it not only has great development on sport and health care, more and more academic articles get the research between digital learning and wearable technology, applying on kinds of teaching. We can help learners learn well by helping and integrate wearable devices with adaptive strategy, providing feedback and assistance (Valerie & Brendon 2003), expect to increase the learning performance. And different individuals will get different results actually.

Shams & Seitz proposed the importance of multiple sensory learning approaches in 2008, and in recently years, it tends to apply technology to English or mathematic learning and so on. However, children still can make good performance on learning knowledge. English is regarded as the second language for the human being, but it may face much difficulty when learning because of lack of proper advises, so we can achieve the goal that is expected (Chen et al 2015). Therefore, the purpose of this study is to integrate wearable with Mozbi, emphasized on English's importance. And design the individual learning by adaptive ways, make the learning process be more interesting, and understand the effect of this new teaching way on learning performance.

This study has three primary questions we want to realize: First, will adaptive learning affect the learner's learning performance and enhance the learning performance? Second, will the system affect the learner's learning attention through adaptive learning? Finally, compare to traditional teaching and analyze the learning satisfaction on students to create innovate teaching ways.

This paper is organized as follows: The next section provides an overview of the literature. The subsequent section presents a research method and process, then analyze the data in chapter 4, we describe the results of the research and end with the discussion and a summary conclusions.

Literature Research

2-1 English as second language (ESL)

According to the British Council survey in 2013, more than two billion people communicate with English in the IT, science, and business fields until 2020, and the number of non-native speakers exceeds that native speakers (Yuliya et al 2015). The way using technology to improve language learning can be traced back to a century ago when Clark used phonetic recorders for speech modeling (Juliana & Alfred 2014; Kuiper & Kuiper 2003). Over-dependence on the traditional dictionary but dictionaries can't provide proper advice (Chen et al. 2016). Nowadays, students are more and more likely to get information on the Internet easily. As students are easily affected by new technology, some scholars have started to discuss the improvement of traditional English teaching. Technology can not completely overcome the difficulties of English learning and teaching, but it can be a springboard for the development of English teaching. For these learners, pictures, brief descriptions, and voices can build their strength through technological applications and new strategies and achieve

step-by-step learning outcomes (Kathy 2014).

2-2 Adaptive Learning (AL)

The definition of adaptive mainly emphasizes on the design of learners' learning environments according to one individual characteristic. Different individuals will get different results and different performance in the learning process (Shute & Towle 2003). And the system can provide answers through immediate learning, so as to achieve the role of knowledge feedback. However, the greatest system should involve different activities and teaching methods, so that learners can receive the different knowledge transmission and presentation. It seems that learning opportunities are no longer limited by applying flipping classroom, compared to traditional learning, will be more interesting and more easily accepted. The objective of adaptive learning is to provide appropriate instructional contents for each learner at the right time and the proper time. We are now focused on how to build a good learning attention and attitude in digital learning and learning content. We present a simple introduction and describe the research model.

Learners can obtain the learning materials by the learning design, and teacher can understand the state and offer a feedback rapidly on time. Combing adaptive strategy with education technology field can be divided into three modes, personalized learning path, personalized learning content, and personalized presentation. The adaptive approach provides learners with appropriate online learning path in according to personal demanding, and guide. After finishing the learning task we can analyze the results or performance and feedback, offer the mistakes and wrong places in the end.

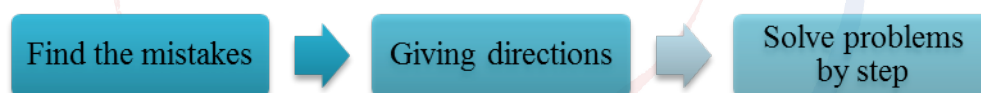


Figure 1. Adaptive process

The goal of adaptive e-learning is aligned with exemplary instruction: delivering the right content, to the right person, at the proper time, in the most appropriate way-any time, any place, any path, any pace (NASBE, 2001). There're different parts in adaptive system, first, the activities we deliver to them must let students understand the creativity of courses. If learners are looking forward to the learning outcomes, we must actively integrate into the curriculum inside; second, the course must be presented to learners in diversified ways by a concept or rule, so that the adaptive mechanism can provide individual learners' learning path and measure learners' learning attitude. At the same time, when the learners learn to fail or ineffective, also give another presentation, and immediately get the content (Shute & Towle 2003). The diversity of teaching ways needs to include different visual effects, such as text and image comparison, or in different images to render the same concept. Third, learners are provided with a final learning activity that reflects learners' knowledge on learning and integrates it. In the end, the system will support and assist learners to spend time learning, not just enjoy the effort of using the system to easily identify learners' cognitive components (Shute & Towle 2003).

2-3 Multisensory Tangible Learning

The way about multi-sensory teaching to enhance the memory has been a long story, and a series of multiple sensory techniques have been used in early teaching courses to enrich learning and motivate learners (Montessori, 1912). DfES (2004) defines multiple sensors as the use of visual, auditory, kinesthetic patterns at the same time. Multi-sensory learning techniques have also been shown to contribute to the learning and development of foreign languages (Kalivoda, 1978). At the most basic level, our brains are receptive to activity through five senses, see, hear, touch, smell, and taste (Jubran 2012).

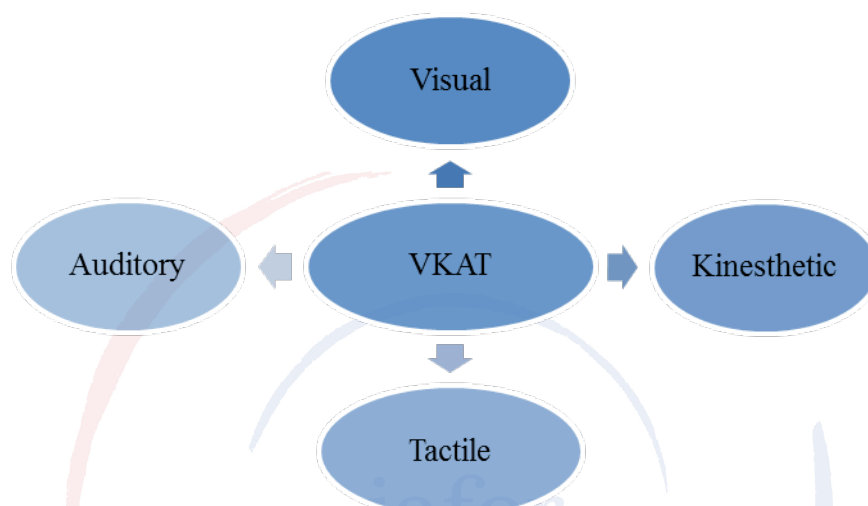


Figure 2. VAKT Model

Different people with different senses have different perception and experience, but most people learn through multiple senses, will learn better. New teacher follows the wisdom of Confucius: "I have heard but I have forgotten; I have seen so I remember; I did so I know it." When a learner devotes his or her whole heart, he learns to use multiple senses to learn. The multi-sensory teaching approach is an effective method for learners. In general, multi-sensory means that present information in three or more patterns, such as vision, touch, and hearing. Visual presentation involves the use of graphical organization to construct the curriculum, auditory means the details of the discussion or loud reading; touch contains the content of the object-oriented presentation and can be held in the actual experiment. Overall, it is not difficult to implement a multi-sensory approach. In fact, there are already many teachers using this method. This is a very important strategy. However, it is necessary to review the three models and try to integrate them better. Jubran 2012).

Table 1. Multisensory Tangible Learning

Authors	Theme	Theory	Method	Variables	Findings
Jubran 2012	Using multi-sensory approach for teaching English skills.	Multi-Sensory Approach	Experiment	Gender	As a result of this experience, the researcher concluded that students were more engaged in learning when they were given a chance to use all their senses.
Faivre et al 2014	Multisensory Integration in Complete Unawareness.	Multi-Sensory Approach, global-neuronal-workspace theory	Experiment	Semantic relations and prime-target congruency	Our findings reveal that the relations between conscious and unconscious integrative processes are more complex than sometimes assumed (Mudrik et al., 2014).
Mitchel & Weiss 2011	Cross-Modal Effects in Multisensory Statistical Learning.	Multi-Sensory Approach	Experiment	Test type	We found that learners were able to segment both the visual and auditory input streams successfully.
Lim et al 2011	Multisensory Convergence with a A network of Spiking Neurons.	Multi-Sensory Approach, Graph theory	Experiment	In strength	The results show that the proposed convergence model is enough to produce various types of neurons
Laur'ia 2016	A multimedia And multisensory guidebook for cultural towns.	Multi-Sensory Approach	Experiment, Survey	Two user groups	Finally, an integration of the guidebook informative Contents would be useful. For instance, one thinks about specific food information for people with food disorders.

2-4 Wearable Technology

According to Clark (1918), the use of phonograph recordings to establish pronunciation models for language learners, the use of techniques to improve language learning dates back almost a century ago (Chau & Lee 2014). Current Trends talking about Internet of Things (IOT) has evolved its business model in the IT field, and wearable technology has expanded to include health, medical and other sections. In this study, the Neurosky electroencephalogram (EEG) instrument consists of two sensor disks, one touching your forehead and the other touching your left earlobe in a clip. It must be connected via USB to the computer and transmit brain wave data, it needs to install the software system so it can be used. (Mark 2012)

Table 2. Mindwave values

Value	Hz	Definition
α wave	8-12	Imagination, relax
β wave	12-30	Sober, Stress, Tension, Anxiety
θ wave	4-8	Subconscious, Deep sleep, Perception, Emotion
δ wave	0.5-4	Unconscious

2-5 Learning Performance

Learning performance refers to the change of learners' knowledge, skills and attitudes after finishing the course. It is a measure of a learner's learning achievement and is one of the main items in teaching quality evaluation. A basis for improvement and adjustment for learners and teachers. The core of learning effectiveness assessment is to assess the learner's knowledge level, explicit behavior due to knowledge, and analyze the participation in the learning process, and use the test to evaluate the learning effect, and the learning performance will be affected by the learner's learning pattern, Learning curriculum, and teaching patterns (Milos et al 2014). Cognitive load, instructional research, and methodological design affect each other, so they need to be analyzed together to achieve the best learning outcomes. Many previous studies have shown that learners' learning motivations and cognitive outcomes are influenced by interactions with the learning curriculum and are related to the effectiveness of the learning process.

Research Method

3.1 Research Architecture

The study process is divided into eight steps, which will be described in detail below. The first step is to confirm the research motivation and purpose according to the current development of information technology field. After defining the scope and object of the study, the relevant research and literature will be explored. As shown in Figure 3, the design of the system and adaptive strategy will be carried out. After the system experiment, with the fore knowledge of English test, in the follow-up to analyze the performance of learning.

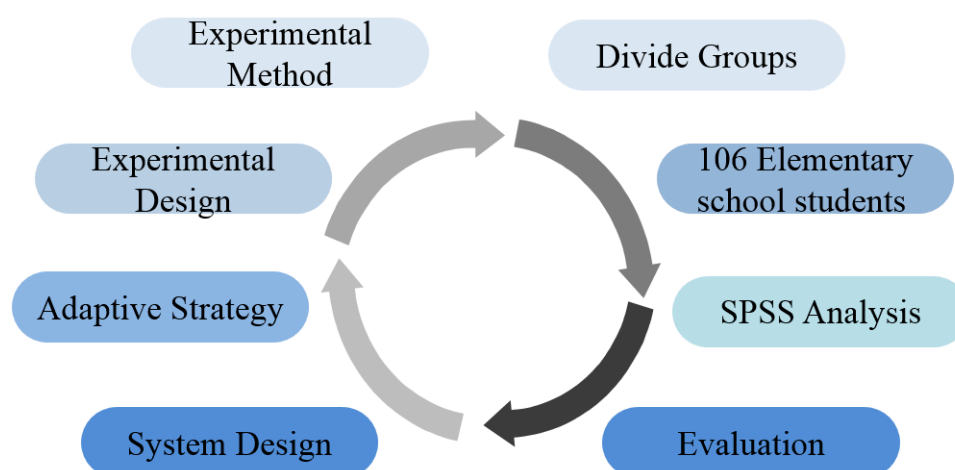


Figure 3. Research Architecture

In the research process, we explain the system operation manual for about 10 minutes, test and learn with the adaptive learning system about 30 minutes, use the gap of pretest and posttest to compare the learning performance among four groups and provide questionnaires for students of understanding the learning satisfaction.

3.2 Research Process

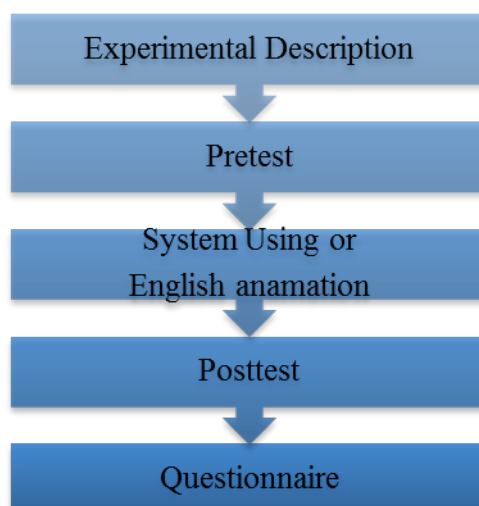


Figure 4. System Process

3.3 Data

The study was conducted in Kaohsiung and Tainan in the summer of July and August 2016. There were 106 elementary school students, including 4 to 6 grades, and a total of 106 pre-tests and post-tests, collecting posttest satisfaction questionnaires.

Table 3. Group definition

Number	interactive (with Mozbii)	no interactive (Traditional)
with the adaptive strategy (with Neurosky)	32(Integrated)	24(Neurosky)
no adaptive strategy (Traditional)	26(Mozbii)	24(Control)

3.4 Environment

Table 4. Environment and devices

Field	Brand	Requirements
iPad	Samsung	Windows
System	App	Android Studio, JAVA
Tool	Mozbii	Bluetooth 4.2
Tool	Neurosky	Bluetooth 4.0, Software, Battery4

Data Analysis

We use English pretest to examine whether there are different on English proficiency, The results showed that there was no significant difference in English language knowledge among the four groups($F = 1.284$, $p = 0.626 > 0.05$).

Pretest	N	Mean	Std.	F
Control	24	50.20	26.35	1.284
Neurosky	24	50.10	10.43	
Mozbii	26	51.44	11.49	
Integrated	32	60.78	35.9	

However, after a time spent on use, the posttest results showed that the four groups of students in the relevant knowledge of the English language significantly different ($F = 8.34$, $p < 0.001$). In addition, after Scheffe expost test, we found that the integrated group of posttest results is higher than the mozpii group, brain wave group and control group.

Posttest	N	Mean	Std.	F	Post Hoc
Control	24	50.41	25.02	8.34***	Integrated > Mozpii *
Neurosky	24	60.72	13.70		Integrated > Control
Mozpii	26	2.98	19.28		***
Integrated	32	80.54	29.22		Integrated > Neurosky *

Findings

We found that children are curious and feel excited on contacting new technology tools, and the students' learning satisfaction are generally higher than others, accepting new different ways. The study found that the integrated group learning results are higher than the brain wave group and the mozpii group, and even higher than the traditional teaching control group.

Conclusions

Through the use of wearable technology can trigger the interaction of different fields or events, so that the system perceives the related information of learners (Strohrmann et al, 2013; Strohrmann, Seiter, & Tröster, 2014), and thus provide feedback, so that learning and the environment closely linked, this learning model is called "context-aware learning" Context-aware learning (Dey, 2001). At the same time, the learning system can analyze the learners' learning state and interaction under the situation learning, and provide personalized and adaptive learning support and guide, which is called "adaptive learning" (Adaptive learning, which is broadly defined as a process that fits the learner by adjusting the behavior or function of the system (Gómez, Zervas, Sampson, & Fabregat, 2014).

In this study, the limitations of the study include that, it need to improve the accuracy of the device itself, and the interference of signals and links between many devices in the same location using at the same time. In the future, we hope to integrate more wearable science and technology into different fields to learn or use in different areas, even with the context of perception and measurement of heart rate, so that learners can feel as if in the right environment to experience more interesting learning. How to use the wearable technology to make learners interact closely in a good learning environment through context-awareness and record the interaction generated in the learning process as the basis for learning to guide and adapt to real-time, will be worthwhile to explore.

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Factor Structure of Research Attitude among Graduate Students in Education

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Abstract

Dropping survivability and rising drop-out rates in the graduate school is attributed to the demands that come along with research-related requirements. Graduate students tend to withdraw from their studies when confronted with such requirements. This act of succumbing to the challenge is primarily due to a negative mindset. An understanding of students' views towards research is essential for teachers in facilitating research activities in the graduate school. One major concern, however, is the scarcity of tools with established psychometric properties. Therefore, this study aimed to develop an instrument that accurately gauges students' attitude towards research. Internal consistency and factor structure of the Research Attitude Inventory (RAIn) was assessed. A pool of items was initially constructed and was administered to a development sample composed of Master's and Doctorate degree students. Results show that the RAIN is a reliable measure of research attitude ($k=41$, $\alpha_{\max} = 0.894$). Principal component analysis using orthogonal rotation with Kaiser normalization identified four underlying factors of research attitude, namely predisposition, purpose, perception, and preparation.

Keywords: scale development, research attitude, graduate education, principal component analysis



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Introduction

Research is a term loosely used in everyday speech to describe a multitude of activities, such as collecting masses of information, delving into esoteric theories, and producing wonderful new products (Walliman, 2005). Calmorin and Calmorin (2007) define research as the scientific study of trend or event which involves careful collection, presentation, analysis and interpretation of data or facts that relates man's thinking with reality. The Oxford Encyclopedic Dictionary defines research as the systematic investigation into the study of materials, sources, etc. in order to establish facts and reach new conclusions; it is an endeavor to discover new or collate old facts, etc. by the scientific study of a subject or by a course of critical investigation. For the graduate school student in the master's and the doctorate levels, research is nothing but an academic requirement that would bring them a step higher in the academic ladder. This notion is based on the fact that most graduate programs today require students to submit an acceptable thesis (for master's level) or dissertation (for doctorate level) prior to the confirmation of the degree.

Research, as a part of academic requirement for graduate degrees, traces its history before the end of the 13th century in Paris when candidates for higher education defended their theses (Calmorin, 1994). A thesis is a report of the process and results of research, extending from a central proposition, hypothesis, or problem to a definite generalization growing out of facts while a dissertation is a thesis covering a limited range which further must be a contribution to knowledge.

Almack (1930) emphasizes that research as an academic requirement is a result of independent work. Such requirements are consistent with the theory of higher education. As universities are now organized, three fairly definite stages in the educational process are recognized: period of the mastery of knowledge; period of mastery of the techniques by which knowledge is tested and additions are made to the sum total; and period of discovery or research (Almack, 1930).

Research is one of the things that every graduate school student should be ready for. Students in higher or further education, whether full- or part-time, may be required to complete research projects of one kind or another. Requirements that involve independent research are inevitable in most, if not all, academic courses. In some instances, the research project forms a relatively minor part of the course; in others, the project is virtually the whole basis on which award is made (Denscombe, 2002; Sharp, Peters, & Howard, 2002;). On top of that, thesis or dissertation writing comes as the ultimate universal requirement for a student to finally earn a higher degree. In fact, people judge a recently graduated master's or doctorate by his or her research (Azuma, 2003).

The scenario manifests that a student's admission to a graduate program comes with an assumption that he can do independent research. Graduate school administrators argue that the assumption is evidenced by documents that the students submitted prior to admission to the program. Unfortunately, in most cases, the assumption proves otherwise.

Most students in the graduate school have a phobia for research and thesis writing. Some say it is difficult to write a thesis. Others are afraid of the long process related

to the research undertaking (Garcia, Nuevo, & Sapa, 2007). According to Barnes (1995), the students' lack of interest is due to their view that research is complex, ambiguous and open to doubt. Consequently, they are not driven on by curiosity and may perceive doing a research more as a chore than a process that fosters the personal development of the student (Sharp, Peters, & Howard, 2002). Phillips and Pugh (2000) say that the new graduate school students often have the idea that people who possess higher degrees are outstandingly brilliant. This idea inhibits their own development as they are equally sure that they are not outstandingly brilliant and therefore cannot really expect to be awarded higher degrees. Similarly, if they actually read any completed theses or dissertations, they often emerge convinced that they would never be able to write anything even remotely resembling such a document either in length or quality.

As a result, research is often blamed for the dropping survivability rate and rising drop-out rate among graduate schools. Graduate school students tend to take halt after their academic requirements and delay their thesis or dissertation writing; worse, they take the risk but fail and soon forget their dreams of obtaining a higher degree all together. Meanwhile, other students who fortunately are given research tasks earlier on in their academic courses get tired of the arduous tasks entailed by the requirement and eventually drop out of school for reasons that they cannot cope with what is expected.

In a longitudinal study of doctoral programs from 1958 to 1988, Bowen and Rudenstine (1992) report that all those who enter a doctoral program, only about half actually complete their program (Faghihi, Foroozandeh, Ethington, & Corinna, 1996). This extensive study examined English, History, Economics, Political Science, Mathematics, and Physics doctoral programs at ten major research universities in the United States of America. A similar finding was divulged by a recent six-year executive report submitted by one state university in the Cordillera Administrative Region to the Commission on Higher Education. Apparently, the increasing dropout rate in the master's and doctorate levels is due to the non-compliance of research requirements (BSU Executive Report, 2007).

The shortest answer to the question "What makes a good learner?" is "One who can get started" (Barnes, 1995). The answer to the question "What makes a good researcher?" could be answered in the same way. Unfortunately, students do not seem to get a good start in research that eventually manifests in their academic and standing performance in the graduate school.

It is therefore the aim of this study to assess the graduate school students' attitude towards research. This study shall also look into the indicators that contribute to the students' research attitude.

Nature of Research

Research is a term used in the academe that is usually abused and misused. According to Walliman (2005), research in everyday language describes a multitude of activities including the collection of masses of information, delving into esoteric theories, and production of wonderful new products. The term "research" is often used to pertain to quick reading through a few books or magazines or even asking

some people to be better informed about something. Some people use the term research to mean collecting a vast amount of information and reassembling them into a single report. Very often, the term “research” is used in an emotive fashion in order to impress and build confidence

As research is a part of the many activities of in the graduate school, it is important for the graduate students to understand what research really is. According to the Oxford Encyclopedic Dictionary, research is the systematic investigation into the study of materials, sources, etc. in order to establish facts and reach new conclusions; an endeavour to discover new or collate old facts etc. by the scientific study of a subject or by a course of critical investigation. Sharp, Peters, and Howards (2002) define research as seeking through methodical processes to add to one’s own body of knowledge and to that of others, by the discovery of nontrivial facts and insights. Sekaran (1992), as cited by Gray (2004), describe research as systematic and organized effort to investigate a specific problem that needs a solution. Calmorin and Calmorin (2007) say that research is a systematic investigation of phenomena which includes collection, presentation, analysis, and interpretation of facts that links man’s speculation with reality.

Garcia, Nuevo, and Sapa (2007) emphasize that the term research contains the pre-fix “re”, which means “again” and signifies of the search. Literally, research means to “search again.” The etymology thus implies that to research means to seeks new knowledge for the improvement of the quality of life. Leedy (1996) describes research as “the systematic process of collecting and analyzing information (data) in order to increase our understanding of the phenomenon with which we are concerned or interested” (Souleyrette, 2000; Walliman, 2005).

The word research has so many meanings attached to it in that “few people have any idea of the real meaning” (Leedy, 1996). The most important characteristics of formal research is that it involves the interpretation of data to draw conclusions. Research is not, then, the mere restating of previously known facts or the process of obtaining new knowledge by searching for information.

According to Leedy (1996), the process of formal research, which this paper is interested in, has eight distinct characteristics, namely: research originates with a question or problem; research requires a clear articulation of a goal; research follows a specific plan of procedure; research usually divides the principal problem into more manageable sub-problems; research is guided by the specific research problem, question, or hypothesis; research accepts certain critical assumptions; research requires the collection and interpretation of data in attempting to resolve the problem that initiated the research; and research builds on previous research.

Features of student-authored researches, on the other hand, include: the research topic may be imposed on the student; the research must be completed within a given time period; funds for experiments, travel, postage and so on may be limited or even non-existent; the results of the research must be presented in a specified manner; and the student may possibly have to relate to an academic supervisor who may lack competence within the field of study chosen or with the process of research itself (Sharp, Peters, & Howard, 2002).

Research as an Academic Requirement

Research as an academic requirement started as early as 1219 A.D. (Calmorin, 1994). Students aiming for a higher degree were obliged to make their own theses and defend it before a council.

Thesis is commonly regarded as a coherent report of research, in which both process and the results are given. Its origin is a problem; its central proposition is a hypothesis. In this sense, thesis often is used as synonymous with dissertation (Latin *dissertatus*, plural of *disserto*, frequently of *dissero*, to discuss); defined as the presentation of a subject, oral or written, usually extended and argumentative; thesis disquisition, hence, in general, extended or didactic remarks or writing (Almack, 1930). Today, thesis is distinguished from dissertation, the former pertaining to the research output of students in the master's level. Doctoral programs usually require original research leading to the defense of a doctoral dissertation ("Graduate Education", n.d.).

The preceding scenario still holds true to date. In the modern-day picture, individuals seeking academic degrees beyond the college level are regarded as "research students" (Phillips and Derek, 2000), apparently because research is a part-and-parcel of the most (if not all) graduate school programs (Koch, n.d.). As such, most graduate school admissions committees, particularly for doctoral programs and for research-oriented master's programs, prefer candidates who have strong backgrounds in methodology and statistics ("Psychology Careers", n.d.).

In the quest of universities to be world renowned, they continue to strive for excellence in all its activities, one of which is the quality of research conducted by its postgraduate students. The reputation and quality of the university's postgraduate programmes are measured in part by the quality of the research activities and theses produced by the students. Since research reports, particularly theses or dissertations, are open to scrutiny, students must strive to develop competencies in research-related activities (Mahmud & Zainol, 2008).

Educational institutions are called as universities in the United States if they offer graduate study emphasizing research as well as teaching. In effect, there are about 1,100 universities in the United States that offer graduate level programs, of which 430 also offer doctoral degrees ("Graduate Education", n.d.).

In the academe, although graduate students usually take some formal course work as part of their degree requirements, research is an important part of most graduate programs. Graduate students do independent research in consultation with a supervising professor (often called the "major professor" or thesis adviser) or a committee of professors who help to set up research plans and schedules. Research-related tasks may be given as a relatively minor part of the course or virtually as the whole basis on which award is made (Sharp, Peters, & Howard, 2002; Denscombe, 2002).

In both ways, the students' outputs are considered determinants of what their universities can do in terms of research. For this reason, research may be regarded by the graduate school student as the decisive link to the higher degree he seeks. In this

instance, research may be regarded as an ultimate good. However, research is the opposite when it becomes the reason for the student to delay his schooling, or worse, dropping out from school altogether. Garcia, Sapa, and Nuevo (2007) confirm that even graduate school students have a phobia for research and thesis writing. Some say it is difficult to write a thesis; they are afraid of the long process related to research undertakings. They view research methodology courses negatively (Lei, 2008). Many graduate students in education and the social sciences have concerns about learning research concepts. In addition, many fail to master key concepts needed to prepare them for designing dissertations and future studies at a doctoral level. Anxiety and doubt can greatly interfere with students' ability to learn and master research concepts (Baltes, Hoffman-Kipp, Lynn, & Weltzer-Ward, 2009). This phobia eventually leads to the students' poor research and academic performance in the graduate school.

Several authors have linked attitude theory to the research training process (Betz, 1986; Royalty & Reising, 1986; Wampold, 1986 as cited by Bieschke, et al., 1993). They hypothesize that inadequate research attitude beliefs are possible actual factors of students' lack of interest and participation in research-related activities. In other words, failure to comply with research requirements in the graduate school is attributed to how much the students know about research and how much they are ready for activities in research.

Research Attitude

Bandura's (1977, 1982, 1986, 1995, 1997) concept of attitude as applied to research can be defined as confidence in carrying out research activities from organizing a research plan to carrying out the research process from library research and reading to writing and publication (Holden et al., 1999; Lei, 2008; Uranu & Beck, 2004, as cited by Baltes, 2009). The author of the article relates that attitude is a good predictor of behavior and research attitude is particularly useful in identifying the forces at work in career choices for graduate students regarding whether or not they will engage in research formally in their work (Mullikin, Bakken, & Betz, 2007).

Baltes, et al. (2009) cited results of previous studies made on the effects of students' research attitude to their performance in the graduate school. Research has shown that low research attitude can interfere with students' research training and practitioners' willingness to conduct research and add scholarly contributions to their field of study (Love, Bahner, Jones, & Nilson, 2007). Research has also shown that high research attitude is an important factor related to students successfully conducting research and pursuing research beyond graduate study (Forester, Kahn, & Hesson-McInnis, 2004).

The study by Lei (2008) on the Factors Changing Attitudes of Graduate School Students toward an Introductory Research Methodology Course reveal that among various research attitude items, students were most confident in using computers, creating graphs, and writing library research papers, and these three items did not differ significantly from the beginning to the end of a semester.

The basic components of research competencies can be traced from the actual research process: problems/objectives; hypotheses; theoretical/conceptual framework;

assumptions; review of related literature; research design; data collection; data processing and statistical treatment; analysis and interpretation; and summary, conclusions and recommendations (Calmorin & Calmorin, 2007).

Factors Affecting Research Attitude

A student's performance in the graduate school is a product of many factors, such as: previous research experience, previous research supervisor, previous research adviser, time, funding, nature of job, writing ability, and motivation to do research, towards obtaining a higher degree, or towards being promoted.

It is important for faculty to stress the value of undergraduate research for graduate school preparation and admission and to provide research opportunities that students can complete before the graduate school application process begins. Research experiences provide important preparation for graduate school (Landrum & Nelson, 2002 as cited by Koch, n.d.).

This is why graduate schools value undergraduate research and use it as a criterion for acceptance into graduate programs (Vittengl et al., 2004 as cited by Baltes, et al., 2009). Some graduate schools assess applicants by way of recommendations coming from previous professors; others do it by way of a test.

Further, Huss et al. (2002) says that students who engage in undergraduate research feel better prepared for graduate school (Baltes, 2009). Attitude in research for graduate students appears to begin with positive experiences in the early research design courses.

It is then important to ensure that the first core research course experience provides the needed support and mastery experiences to enhance research attitude in graduate students (Baltes, 2009). Research courses that bridge prior learning with new applications for and motivation to conduct research may be the road to building research attitude in graduate students.

Involvement in research is important for at least four reasons (Koch, n.d.). First, research can help a student determine his or her area of interest in psychology, thereby allowing for a more focused search of graduate programs. Second, working with a faculty member on research can help yield better letters of recommendation. Third, undergraduate research provides an excellent opportunity to enhance several secondary criteria for graduate school admission. Finally, engaging in research helps develop research-based skills that are important for success in graduate school.

Teachers are a major make-or-break factor for students' success in higher education. Previous professors of students play a part in the students' performance in research in the graduate school. For this very reason, Lamanauskas (2008) convey that teacher qualification question remains urgent. The majority of the researches both national and international in one way or another reveal direct link between students' achievements and teachers' competence.

Meanwhile, the motivation and interest towards research dictate the students' success in the graduate school. The usual negative associations with research courses led to

diminished amounts of time spent in and effort spent on research courses and projects (Lei, 2008 and Papanastasiou, 2005 as cited by Baltes, et al., 2009).

Gray (2004) reminds graduate school students that selecting an issue that is within their capabilities is essential. Skills will, hopefully, develop during the course of the research process; but, by choosing a topic that requires statistical skills when a student is comfortable with only basic mathematics may be a recipe for disaster. In research, projects that are congruent with both work area and experience (the safe approach) may be chosen or beyond both their work and current knowledge set. This poses greater risks, but also enhances opportunities for personal development. Moving the project into unfamiliar work area may also provide opportunities for networking amongst new groups of people which can be advantageous for both the project and the graduate student's own professional future (including their future as a researcher).

Students' interest is somehow likewise linked with the specialization of the professors in the graduate school. It was observed that graduate school applicants often underestimate the importance of identifying potential thesis/dissertation chairs and members that match in their applications. Finding the perfect mentor and future dissertation chair is a key factor to consider ("Highlighting Your Research", n.d.). MacNeill (n.d.) emphasizes that graduate students should make sure there are professors studying their specific areas of interest.

Basic skills related to research are also determinants of students' research performance in the graduate school. Writing and using the computer are two to name a few. Richards and Miller (2005) relate that enrolling in graduate programs entail frequent encounters with writing challenges. Graduate school students meet very rigorous writing demands to complete their programs. In terms of writing the research proposal and the manuscript, students write for audiences who have authority over them (Elbow, 2000 as cited by Richards & Miller, 2005).

Another basic skill is using modern technologies that supposedly aid the undertaking of the research process. Nowadays, data analysis is performed in the computer using various softwares, like the Minitab, Statistical Package for the Social Science (SPSS), and Statistical Analysis Software (SAS). However, Lamanauskas (2008) says that the question of using the newest information communication technologies remains problematic.

Theoretical knowledge in the graduate school students' field is also important. Gray (2004) says that research process requires students to engage at some stage with theoretical perspectives. Sometimes, this will occur before undertaking the research (deductive approach) and at other times after it (inductive approach). As Raimond (2002) reminds, graduate school students should make sure that their topics are capable of being linked to the appropriate academic theory.

Another factor that affects the research attitude of graduate school students is time. According to the National Survey of Student Engagement (2009), as cited by Baltes (2009), students in the graduate schools spend little time on research, especially once they secure a faculty position.

However, it is a totally different story when research tasks are embedded in the job of the graduate school student. As the real world becomes more competitive, complex and uncertain, many people are recognizing the importance and value of research. Hence, research is no longer just the remit of the professional researcher or the university academic. It is increasingly becoming an integral part of the job specification for many occupations (Gray, 2004).

Objectives

The primary objective of this study is to develop a tool that can measure the attitude of graduate students towards research. Particularly, this study aimed to 1) determine the reliability coefficient of the Research Attitude Inventory (RAIn) and 2) Identify the factor structure of research attitude among graduate students.

Methodology

Developmental research method was used to construct the scale intended to measure research attitude. The study was conducted in Benguet Province, the capital of the Cordillera Administrative Region (CAR), Philippines. Benguet was chosen as location of the study for the reason that there is a variety of graduate programs offered in its Higher Education Institutions (HEIs) and cultural and demographic diversity of their enrollees. The fact that enrollees come not only from the different municipalities of Benguet but from nearby provinces as well.

The study involved students enrolled in any of the graduate programs in Education at the time of study. Cluster random sampling technique was employed in selecting the respondents. A total of 160 students participated, where 121 (75.62%) and 38 (23.75%) were enrolled in the Masters and Doctorate levels, respectively.

Data were collected by way of an affective scale. The Research Attitude INventory (RAIn) consisted of 50 statements which was assessed by means of a four-point Likert scale. Items in the RAIN were based on literature review, particularly the various definitions and characteristics of the construct "attitude."

Responses to the items were summarized and coded. Prior to statistical analysis, negatively-keyed items were reverse scored, i.e., "1" for responses of 4, "2" for 3, "3" for 2, and "4" for 1.

Diagnosis of data was done before factor analysis was performed. The coefficient obtained using Kaiser-Meyer-Olkin Measure was 0.812, which is greater than the minimum of 0.50 signifying that the sample is adequate. Bartlett's Test of Sphericity yielded $\chi^2 = 2448.789$, $p < .001$. This figure indicates that correlations between items were sufficiently large for PCA and therefore confirms that the data can be subjected for factor analysis.

Cronbach's coefficient alpha (α) was used to determine the reliability of the scores in the RAIN. Exploratory factor analysis (principal component analysis) was employed to identify the grouping or clustering of the variables. Orthogonal (varimax) with Kaiser normalization was the rotation method specified.

Results and Discussions

This section presents the outcomes of the statistical analyses done on the data gathered. Results are followed by elaborative explanations including implications, attributions, and corroborations with findings of previous related studies conducted.

Reliability of the Research Attitude Inventory (RAIn)

Reliability is defined as the degree to which items in a scale “consistently reflect the construct” being measured. As the RAIN is an affective scale, internal consistency particularly Cronbach’s alpha (α) was employed to determine its reliability coefficient. The general rule for an instrument to have acceptable reliability is a coefficient of at least $\alpha = 0.80$ (Field, 2009).

Analysis was done three times before the maximum reliability of the scaled was obtained. Items were deleted in between until the reliability coefficient reached its peak. During the initial run, all 50 items of the item pool was subjected for analysis, which bared a coefficient equivalent to $\alpha = 0.860$. The resulting coefficient is slightly larger than the required quantity, meeting the general requirement of a reliable measure. However, statistics suggest the removal of six items for the obtained coefficient to improve.

With 44 items included for the second run, the reliability coefficient increased by 0.022 such that the resulting measure became $\alpha = 0.882$. Further, the statistics recommended the deletion of five more items so that during the third run, only 41 items were entered. The resulting coefficient was $\alpha = 0.894$. Examination of the statistical output reveal that no other item may be subjected for deletion that will further improve this reliability coefficient. Thus, the maximum reliability coefficient of the RAIN is $\alpha = 0.894$.

Results indicate that the RAIN is a reliable measure. This means that all items included in the instrument consistently measure one and the same construct, which is of graduate students’ attitude towards research.

Factor Structure of the RAIN

Items in the final scale ($k=41$) were included in the factor analysis. A scree plot was plotted to determine the number of factors to be extracted (Figure 1). The point of inflexion of the scree plot occurs at the fifth data point (factor), which denotes that four factors may be extracted.

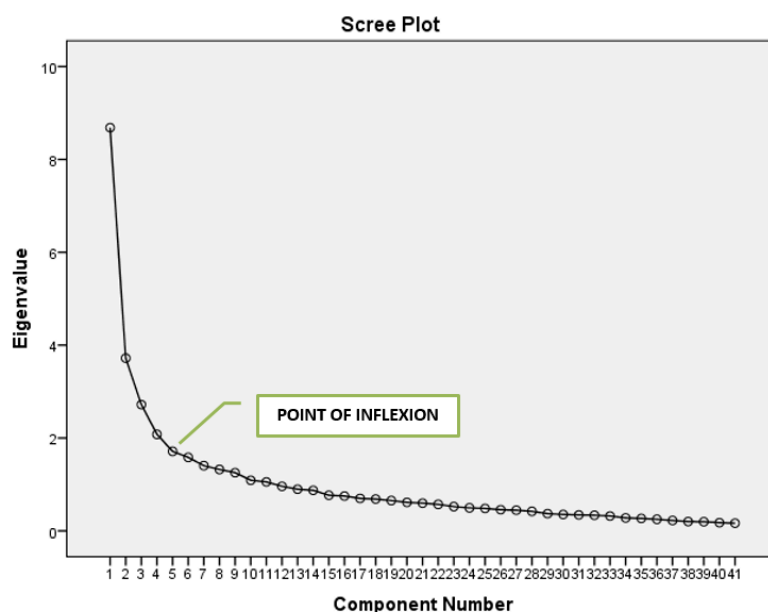


Figure 1: Scree Plot showing the point of inflexion at the fifth data point (factor)

Five components had eigenvalues over Kaiser's criterion of 1 and in combination explained 56.43% of the variance. The convergence of the scree plot and Kaiser's criterion on four components, this is the number of components that were retained in the final analysis.

Factor loadings of the four dimensions of the RAI_n after rotation resulted to Component 1 having factor loadings that range from 0.425 to 0.757; the factor loading of Component 2 range from 0.293 to 0.740; factor loadings of Component 3 range from 0.403 to 0.654; and Component 4 has factor loadings from 0.336 to 0.689.

The items that cluster on the same component suggest that Factor 1 represents the graduate students' predisposition (11 items); Factor 2, purpose (10 items); Factor 3, perception (11 items); and Factor 5, preparation (9 items).

Table 1. Factor Loadings of the four components RAI_n

Factors	Factor Loadings		Number of Items
	Min	Max	
1 Predisposition	0.425	0.757	11
2 Purpose	0.293	0.740	10
3 Perception	0.403	0.654	11
4 Preparation	0.336	0.689	9
Total			41

Predisposition describes a graduate students' personal viewpoint about research. Items included in this component are graduate students' traits that are essential for research (e.g., inquisitive), belief about research, judgment on research activities, and emotional state when thinking about or doing research (e.g., enthusiasm).

Purpose defines a graduate student's mindset on learning research and on the value of research in the curriculum. Items in this factor structure of research attitude include perception about the importance of research activities, significance of the inclusion of research as requirement in the graduate program, and application of research in one's field of specialization.

Perception depicts a graduate student's negative position about research. In this component, items include thoughts about research as a difficult field, cost of research, and exclusivity of research.

Preparation portrays a graduate student's willingness to involve himself/herself to research-related activities. Items in this component describe students' motivation, initiative, and readiness to participate in and conduct research activities.

Conclusion

Research attitude may be measured through four lenses (factors), namely predisposition towards research, appreciation of the purpose of research, perception especially in terms of position towards the pessimistic view of research, and preparedness to participate in research. Findings of this study imply that undergraduate research course is essential in developing a positive attitude of students towards research in the graduate level. As such, it is recommended that 1) reliability of RAI might be tested in other Higher Education Institutions and other graduate programs as well; 2) RAI may be administered to graduate students from different areas of the Philippines to establish its norms; 3) devise ways to improve the perception of graduate students about research (e.g., motivation, teaching strategies, requirements); and 4) integrate research in the undergraduate level and/or Include research as required course in the undergraduate programs in Education.

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***Development of the Ability in Creative Problem Solving of Early Childhood
Education major Students by Using Group Process Activities***

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Abstract

Development students in early childhood education, especially for teaching children ages 0-6 years need skills in problem-solving which is an important skill. The idea of creative problem solving helps students to understand and adapt to the rapid changes of society better.

This research was studied and compared the development of the ability in creative problem solving of early childhood major students by using group process activities.

The researcher collected data from the tests, the ability to solve problems creatively with 1-4 year students Department of Early Childhood Education, Faculty of Education, Lampang Rajabhat University Relations group prior to the event and have targeted 40 peoples. The researcher provided group activities prior 1 event per week, four times the number of weeks were evaluated using prospective assessment of group activities. And tested for their ability to solve problems creatively after each event group. The data was collected by testing the ability to solve problems creatively. After the events group the data were analyzed for mean (\bar{x}) and standard deviation (S.D.). the research presented that 1) Behavior of the early childhood education students after attaining in the activities was overall in a good level. 2) The ability of the early childhood education students in creative problem solving was overall higher under the mean $\bar{x}=14.92$ (before) and $\bar{x}=27.4$ (after)

Students involved in the commentary, expression, faith in themselves, skills in problem solving the problem. The atmosphere in the activities was not boring. The group found that students are happy and skills to work with others have a responsibility to themselves and as a whole. These was supposed that the activities to promote the creative problem-solving.

Keywords: Creative Problem Solving, Group Process Activities, Early Childhood Education major Students

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Introduction

Due to The Office of the Higher Education Commission has a determination of Thailand Qualifications Framework for Higher Education, which consist of 3 criteria to develop abilities for Higher Education thus Student standards, Education standards and Creating and developing the environment of education society standards. As they said about Student standards that graduate students who consisted of knowledge, morality and self-studied and developed to adapt this knowledge for living peacefully in our society, including responsibility as citizens. The indicators of student standards compares with 3 of them as follows. 1) Graduate students should have specialized in area of study or type of work which were their majority, created and adapted their specialty into developing our society in the case of internationally challenges. 2) Graduate students should have a morality and manner for daily life. 3) Graduate students should have a peaceful mind and healthy in conditional on taking good care of their health with suitable situation. Regarding to the student standards includes knowledge, occupation, skill, experience and morality which all these are major abilities, involve in creating and developing the environment of education society standards. Accordingly, this situation, the University should have been revised methodology of education more accurately field.

The development of students in early childhood education, who are promptly abilities for rapid change society and internationally challenges, involve their abilities in independent of human manners, namely; self-thinking, self-doing, self-solving and creating knowledge adapted in daily life. Advanced knowledge is enlightened about brain process and understood the relation of thought and brain, moreover human can practice thinking with fullest ability of the human brain. (Sirikan Kosum and Daranee Khamwajanang, 2001) Then Sombat Ganjanarakpong (2011) and Usanee Anuruthwong (2011) said that the necessity of corresponding thinking composed of Higher-order thinking skills, which were given first priority to develop our country by students and society, namely; creative thinking, decision making, problem solving and especially critical thinking. This critical thinking is a main idea for self-guiding, self-disciplined thinking which attempt to reason in the highest level of quality in a peaceful mind. People who think critical have consistently attempted to live rationally, reasonable and empathically. Moreover they can apply the critical thinking, initiate creation, performance and production the new things.

Guilford (1967) suggested that the nature of the creative aspects of personality is a matter of those patterns of traits that are characteristic of creative persons. A creative pattern is manifest in creative behavior which includes such activities as investing, designing, contriving, composing and planning. People who exhibit these types of behavior to a marked degree are recognized as being creative. When we confront the problem, we normally avoid it, instead of solving a problem. So we should develop our creative problem solving and apply for our joyful daily life. The conception of creative problem solving can be divided into 4 steps. 1) Knowledge, at first we would have identified and recalled of information which referred to the problem. This step will lead us to the valuation of creative problem solving. 2) Comprehension, in this step will be described what knowledge means, finding the main ideas, summarizing, explaining trends and significance. According to self-approval, we should have knowledge acquisition by reading, investigating and cooperating with others. 3) Analysis, examining the reasons for theories, finding evidence and seeing relationships between parts of something. 4) Creating, synthesizing ideas from

different sources or materials to create new perspectives or a new original product. Many have got a creative thinking, but they always have failure in synthesizing process. It depends on awful and lacking of self-confidence. Then we would have concentrated on synthesizing ideas into actions.

The creative problem solving skill is the ability to think clearly and rationally, understanding the logical connection between ideas with creativity which differ from usual, namely; the creative problem solving skill is the effective method for the current situation. The creative problem solving person should always be a diligent personality, who has got this ability, corresponding with Educational reform policy in the twenty-first century. This educational reform encourages the better relationships of study activities between process and method to collaborate activities such as specification about an interesting topic, participation processes. In case of students are able to analyze and integrate with other subjects on their own. The educational reform in the twenty-first century has got flexible, creative, challenging and complex education, which is an influential reason of rapid changes worldwide. This situation will not only be caused by obstacles and problems, but also opportunities and creative productivities. Students should promptly be Thai citizen, Asean citizen and Global citizen with good manners. A good quality of the citizen requires major of abilities for living joyful and morality, who have got these abilities, they become an Ethical person. Then the major of abilities as following 2 groups of related ability, particularly 1) Group of ability 4R consists of 3 abilities; (1)Literacy, (2)Numeracy and (3)Reasoning. 2) Group of 7C consists of 7 abilities; (1) Creative Problem Solving Skills, (2) Critical Thinking Skill, (3) Collaborative Skills, (4) Communicative Skills, (5) Computing Skills, (6) Career and Life Skills and (7) Cross-Cultural Skills. (Pimpun Dechakup, 2014)

Creative Problem Solving: CPS as a conceptual fundamental study creative thinking ability. (VanGundy, 1987 and Treffinger and Isakson, 2005) A plenty of instructor who interested in this method, researched the effective process of Creative Problem Solving and finally developed synthesizing creative production. Creative problem solving exhibits as a kind of process, method or system, provides solving problem by logical imagination as long as its result can be approved by action. (Mitchell & Kowalik, 1999) Besides Treffinger and others (2006) mentioned as a definition of Creative Problem Solving that this is a kind of developed method for creative ability by self-study in development and analysis solving problem method. Arbesman & Puccio (2001) emphasized that Creative Problem Solving combines creative thinking with critical thinking. Some work of Lewin & Reed (1998) and Kriengsak Charoenwongsak (2008) suggested that Creative Problem Solving equate with creative thinking in term of many assorted creative thinking, which supports extended framework of thinking. Then critical thinking as a connector of rationality, which has compared their effect and selected the most appropriate problem solving. Lewin & Reed (1998) applied creative thinking and critical thinking in each of the Creative Problem Solving process into 2 phases. We call Generation Phase and Focusing Phase. Generating Phase allows divergent thinking tools generate many ideas and speculate about possibilities related to a given topic. Focusing Phase allows convergent thinking tools enable to select from the possibilities generated ideas and to formulate a focused research topic and generate an appropriate problem solving. Creative Problem Solving ability should be improved by students. Usage of this ability will be advantaged of their daily life.

By using group process activities with higher education students, should be arranged creative problem solving activities, which develop their ability. As regards emotional crisis of teenage, students always encounter tough situation. Normally they attend to disorder behavior which is commonly seen in adolescents. Their activities include inattention, apparent listening problems and difficulty following instructions, avoidance or dislike of tasks that require mental effort. Some of them encounter depression and become depressive disorder. These matters will be the primary cause of disorder behavior such as drug or attempted suicide. (Likit Kanchanaporn, 2005) For that reason students will be supported by improvement their creative problem solving. To avoid disorder behavior and wrong decisions, students should collaborate with the development of creative problem solving activities. In each activity, students will practice and try to solve their problem by using this method, including improved critical thinking both of convergent and divergent thinking. The curriculum will be consisted of more challenging and encouraged development of thinking ability and conceptual collection becoming a good manner of society. (Surang Kow-trakul 2009) Group Process Activities are configuration of learning by collaborating with students who are responsible for studying by themselves and share their experiences with others. The effective learning will be acquired by analyzed their learning behavior together. This kind of configuration learning by using group process activities will be improved their knowledge acquisition, self-studying, group collaboration and developed their thinking, doing and solving problem with better coordination between instructor and students. This is a perfect opportunity to express students' opinion and recognize the value in this configuration by applying in real life situation. These activities encourage students to increase their self-sufficiency and self-studying abilities with lively and joyful. (Chanitsiree Suphapimol 2002) The configuration of learning by using group process activities is an environmental management and instructional climate relating problem situations effective encouragement of knowledge accessibility. Namely; instructor may lead students encounter the real problem situation or create a situation to practice their analytical procedures and problem solving process as a group. These activities will be effective clearly understanding about the problem to find many resolutions and solving problem, including encouraging of knowledge, intellectual and solving problem abilities. (Tisana Khammanee 2010)

The General Conference of Department of Early Childhood Education, Faculty of Education, Lampang Rajabhat University about Desired Characteristics of Students found that most of them lack of solving problem skills in case of affected their studying and daily life such as pregnancy among students, poor academic performance, accident and depression. The solving problem skills development is the most important to avoid, especially unsuccessfully in criteria of Education. Including Creative Problem Solving encourage their understanding and adapting themselves to the rapid changes of society as well. Examination of the content about creative problem solving tests with students in early childhood education revealed some of them were below the benchmark, that means the encouragement of Creative Problem Solving is so important to make them stable life, self-development with any circumstance surrounding and keep up to date.

Following the causes and important as was said above, the researcher interested in study the development of Creative Problem Solving in Early Childhood Education Students by using Group Process Activities. The aim of this research is development

students in early childhood education, especially for Creative Problem Solving skills in academic life and daily life promptly into specialist in teaching.

Significance of the Research

1. Development of the ability in Creative Problem Solving of early childhood education students by using Group Process Activities.
2. Comparison of the ability on Creative Problem Solving of early childhood education students' pre and post-experience by using Group Process Activities.

Research Hypothesis

I believe that the students in early childhood education will improve their creative problem solving ability when they have got post-experience by using group process activities, are overall higher.

Scope of Research

1. A variation of the research

The independent variable is the investigated variable which is configured learning by using group process activities.

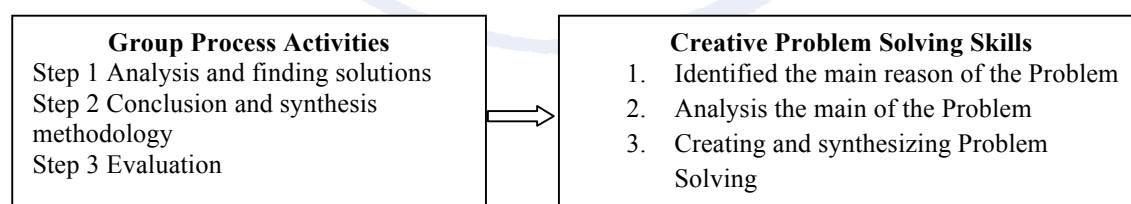
The dependent variable is the investigated variable which is creative problem solving ability.

2. Population of research

The 1st-4th year students Department of Early Childhood Education, Faculty of Education, Lampang Rajabhat University in 2015; amount 40 peoples by specifying sampling

Research Methodology

1. Developed conceptual Framework of Research using identify the problem and research objectives by studying some documents and related research, as a Conceptual Framework namely;



2. Target Population

Target population as the 1st-4th year students Department of Early Childhood Education, Faculty of Education, Lampang Rajabhat University in 2015; amount 40 peoples by specifying sampling and pre-test score of creative problem solving below 50 percentages.

3. Research tools Development as followed by the conceptual framework namely;

3.1 Proposal of Group Process Activities

3.2 Evaluation of Group Process Activities

3.3 Creative Problem Solving ability test

4. Data Collection, researcher collects data as follows below

4.1 Researcher collects data from creative problem solving test in pre-group process activities.

4.2 Researcher configures group process activities as 1 a week. Totally 4 weeks with 4 main activities. In each main activity consists of sub-activities following group process activities 3 steps, namely; Step 1 Analysis and finding solutions, Step 2 Conclusion and synthesis methodology, Step 3 Evaluation, while configures group process activities, researcher evaluates target population by using an evaluation form of group process activities and tests them in creative problem solving as post-group process activities every times.

4.3 Researcher collects data from creative problem solving test in post-group process activities.

5. Analysis of Data, researcher analyzes data by using statistics of evaluation group process activities form for the mean score (\bar{x}), standard deviation ($S.D.$) and a score of creative problem solving test.

6. Conclusion and reporting the result of the research.

Conclusions

1. Development of ability in creative problem solving of early childhood education students by using group process activities, which will be concluded that

1.1 Behavior of group process activities will be divided into

1.1.1 Analysis and finding solution step of students in early childhood education behavior of group process activities at in 1st week was average ($\bar{x} = 2.4, S.D. = 0.54$). In the 2nd week was average ($\bar{x} = 3.2, S.D. = 0.44$). In the 3rd week was high ($\bar{x} = 3.8, S.D. = 0.44$). In the 4th week was high ($\bar{x} = 4.1, S.D. = 0.14$). After they attained in the activities their behavior was overall higher.

1.1.2 Conclusion and synthesis methodology step of students in early childhood education behavior of group process activities in the 1st week was low ($\bar{x} = 2.4, S.D. = 0.54$). In the 2nd week was average ($\bar{x} = 3.2, S.D. = 0.44$). In the 3rd week was high ($\bar{x} = 4.2, S.D. = 0.44$). In the 4th week was high ($\bar{x} = 4.25, S.D. = 0.54$). After they attained in the activities their behavior was overall higher.

1.1.3 Evaluation step of students in early childhood education behavior of group process activities in the 1st week was average ($\bar{x} = 2.8, S.D. = 0.44$). In the 2nd week was average ($\bar{x} = 3.4, S.D. = 0.89$). In the 3rd week was high ($\bar{x} = 4.4, S.D. = 0.54$). In the 4th week was high ($\bar{x} = 4.45, S.D. = 0.44$). After they attained in the activities their behavior was overall higher.

1.2 As a consequence of students in early childhood education in creative problem solving skills by using group process activities which will be concluded that

1.2.1 Creative Problem Solving skills of students in early childhood education while attaining in the activities was shown that at the 1st attempt was ($\bar{x} = 5.09, S.D. = 0.13$). At the 2nd attempt was ($\bar{x} = 7.09, S.D. = 0.05$). At the 3rd attempt was ($\bar{x} = 8.32, S.D. = 0.11$). Their mean score was higher.

1.2.2 As conceptual Framework of the Creative Problem Solving ability will be divided into

1.2.2.1 Identified the main reason of the Problem namely; the 1st attempt was ($\bar{x} = 1.72, S.D. = 0.59$). The 2nd attempt was ($\bar{x} = 2.35, S.D. = 0.53$). The 3rd attempt was ($\bar{x} = 2.65, S.D. = 0.57$). Their ability was improved higher.

1.2.2.2 Analysis the main of the Problem namely; the 1st attempt was ($\bar{x} = 1.55, S.D. = 0.50$). The 2nd attempt was ($\bar{x} = 2.32, S.D. = 0.61$). The 3rd attempt was ($\bar{x} = 2.8, S.D. = 0.4$). Their ability was improved higher.

1.2.2.3 Creative and synthesizing the best problem solving namely; the 1st attempt was ($\bar{x} = 1.82, S.D. = 0.38$). The 2nd attempt was ($\bar{x} = 2.42, S.D. = 0.50$). The 3rd attempt was ($\bar{x} = 2.87, S.D. = 0.33$). Their ability was improved higher.

2. Creative Problem Solving ability of students in early childhood education in pre and post-experience by using group process activities. Researcher found that the pre-experience has got mean score and standard deviation which were ($\bar{x} = 14.92, S.D. = 1.68$). Then the post-experience has got ($\bar{x} = 27.4, S.D. = 1.89$) which were significantly higher than pre-experience namely;

2.1 Identified the main reason of the problem showed that the pre-experience was ($\bar{x} = 4.8, S.D. = 0.96$) and the post-experience was ($\bar{x} = 8.97, S.D. = 0.86$). After students attained in the activities, they were able to identify the main reason of the problem which was a mean score higher than pre-experience.

2.2 Analysis the main of the Problem showed that the pre-experience was ($\bar{x} = 4.77, S.D. = 1.2$) and the post-experience was ($\bar{x} = 9.02, S.D. = 0.8$). After students attained in the activities, they were able to analyze the main reason of the problem which was a mean score higher than pre-experience.

2.3 Creating and synthesizing the best problem solving showed that the pre-experience was ($\bar{x} = 5.35, S.D. = 1.2$) and the post-experience was ($\bar{x} = 9.05, S.D. = 0.67$). After students attained in the activities, they were able to creative and synthesize the best problem solving which was a mean score higher than pre-experience.

Discussions

1. Regarding to this research found that the creative problem solving ability of students in early childhood education, after attaining in the activities was overall higher related with the research hypothesis. As a consequence of group process activities are able to encourage Creative Problem Solving ability in students, especially creating and synthesizing the best problem solving step which has got a mean score in the pre and post-experience higher than Identified the main reason of the problem step and analysis the main problem step as same as Bruner (1969) reported that Problem Solving Process is a thinking process which occurs in encountered challenged situations and react to it in appropriated solution. The fact of this ability is in Human brain, which has an adaptable unspecified problem solving into specified problem solving. When Human brain compiles uncompleted

information, it will refer or recall related information, experiences, evaluated conclusion. Then it is able to adapt and combine the old information into the new different way to solve problem creatively. Guilford and others (1971) said that Creative Problem Solving consists of knowledge diversity namely; multi-optional problem solving and adaptation of thinking process with promptly and suitably skills, which is improved by students using critical thinking step by step. Then the students should apply it for consideration and additional related facts. As following conditions, Problem Solving Skills are still the most important activity in daily life which should be completed for living joyfully. Also the students should learn how to Creative Problem Solving. Normally we always avoid to encounter with the problem, but if we know how to Creative Problem Solving, we will live for more hopefully and happily. Moreover Torrance (1995) supported that Problem Solving Process is a kind of creative strategy which begin with recognizable problem, realized the problem, found what was missing or gap in information. Then it will be caused by assumption, approval of thinking, review and revision of the settlement. Finally reported the result.

2. This research showed that group process activities lead students to the development of creative problem solving, especially evaluation process which has got the highest mean score in high level. And are all describable that some of the students can criticize the work of their member and the other group. Most of them cooperate together well as long as Thanawut Ladwong (2005) said that individual problem solving skill differs from maturity, I.Q., experiences, interest, emotion, motivation and environment of each other, therefore the development of students critical thinking skills will be improved higher and change their thinking behavior on diversified problem solving that instructor should have been suitable curriculum planning which encourage their development of critical thinking skills. Moreover Usanee Anuruthwong (2011) described that the methods of developing students creative problem solving consists of following below.

- 1) Practicing to think that the problem is not badness and trying to find the good aspects of the problem.
- 2) Categorizing and allocating the problem which related purpose of daily life. But if not, should consider what the effect of uncategorized problem is.
- 3) Considering which is main of the problem and minor problem, separate them and solve the problem as step by step.
- 4) Many difficulties of the students are not able to separate the real problem out of imaginary problem. The instructor should suggest the students that the imaginary problem consideration is a waste of time.
- 5) Reversing process of problem solving is another option to solve the problem too.
- 6) Listing the unsolvable problem and must-do first.
- 7) Searching for more information about needing information, experiences, solutions and assisting the students express their opinion before it's too late.
- 8) Having a back-up plan always, if the problem cannot be solved. Students should practice multi-optional critical thinking.
- 9) Changing the methods of problem solving in multi-options when we encounter with the same old one.
- 10) Don't be hesitating to self-talk if it's necessary. Because someone can solve the problem by only listing on the paper or stand still with self-thinking, but some of them need partners to help them solving problem.

Group process activities encourage the students' expression their opinion and help each other. According to the curriculum planning, especially group process activities

in research of Tisana Khammanee (2010) said that Group Process Activities are the most actively collaboration of students, which encourage their entire learning system spread higher and wider. The activities are always a kind of subgroup which cooperate and exchange their information or experience easier by students. Instructor facilitates an educational environment for their learning, try to avoid transferring directly knowledge or information to them. These activities still consist of the analysis process and expression about related processes such as procedure, communication, solving problems, decision which all those affect their confidence and performance. As same as reported in Sirintra Puntasri research (2540) about study in group process activities effect of creative thinking development in students of secondary school year 12th, Bankhoknagamlasiem School, T. Sumran A. Muang Khonkaen that the students who collaborated in the activities, have got creative thinking significantly higher than other counterpart at the 0.05 level. Also furthermore, Bang-on Punusi (2001) researched the effects on group process activities in science study, especially "Food" of the secondary school students' year 2nd. Investigating of learning and coordinating behaviors, including academic achievement found that their learning behavior are well coordinated with each other, well express their opinion, self-confidence, problem solving skill, enthusiasm, understand and remember their lesson, good environmental of study. And task group behavior encourages their coordinated, more responsibilities to themselves and the other. Including their academic achievement higher than the standard, which support that development of creative problem solving by using group process activities is effectively higher.

Suggestions

Regarding to specific period of the research and limit budget. The researcher believes that if this will be extended, the creative problem solving by using group process activities is significantly better than this result.

Suggestions for further research

1. Should extend the period of group process activities.
2. Should provide the group process activities to develop other skill such as communication skill, time management skill.

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Achieving the Goal of Universalization of Education: A Situational Analysis of Chhattisgarh State, India

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Abstract

Chhattisgarh is one of the developing Indian states that is yet to taste the fruits of development like other states of the country. The State's Human Development Index is 0.430, the lowest of all states and literacy rate is 71.04%, which is below the national average of 74.04%. Under the flagship program of Sarva Shiksha Abhiyan (SSA) the Indian government proposes for the Right to Education Act (RTE) as a part of Universal Education Program, which provides quality education to children (6-14 years) bridging the gender, social and regional gaps. In this paper, the author explores the implementation of SSA in Chhattisgarh state and with special focus on two districts of Chhattisgarh namely Raipur and Mahasamund. Both qualitative and quantitative approaches were used to gather data from teachers, students, staff members, parents and community people, and District officials using Interview schedule and questionnaire. Observation and Focused Group Discussions (FGDs) were used to collect in-depth data. The author observed that under the scheme of SSA, both Primary and Upper Primary schools are within the reach of the students. Trainings are imparted to the teachers for upgradation of skills. However, challenges such as paucity of funds, lack of trained teachers, poor infrastructure and facilities, and unfavourable school surroundings were observed. The author suggests that regular trainings to teachers, proper financial allocation, regular monitoring of school activities and community participation can lead to making schools an integral part of the society.

Keywords: SSA, RTE, education

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Introduction and background

Chhattisgarh's Human Development Index is 0.430, the lowest of all states in the country, and literacy rate is 71.04%, which is below the national average of 74.04%. This reflects on the dismal status of the state. With a burgeoning population of 2.56 crores (Census, 2011), and a flourishing cache of resources, the state has not been able to raise the level of its people.

Universalization of Education: SSA and RTE

Education is indeed essential to the practice of democracy (Dreze and Sen, 2002). The focus on the universalization means that no single individual is marginalised and one and all receive education which is also considered a birth right (Dash, 2004).

There have been various Constitutional, legal and national statements for Universalization of Elementary Education. The constitutional mandate of 1950 states that "The State shall endeavor to provide, within a period of ten years from the commencement of this Constitution, for free and compulsory education to all children until they complete the age of 14 years." In 1986, the National Policy on education emphasized that it shall be ensured that free and compulsory education of satisfactory quality is provided to all children up to 14 years of age before we enter the twenty first century. The Constitutional, legal/ and national policies and statements have repeatedly upheld the cause of Universal elementary education. The National Committee's Report on UEE (1999) emphasized that UEE should be pursued in a mission mode with a holistic and convergent approach with emphasis on preparation of District Elementary Education Plans for UEE. Despite, all these efforts, the goal of UEE could only be partially achieved and a large number of children occupied the disadvantaged bracket.

Under the flagship program of Sarva Shiksha Abhiyan (SSA) the Indian government proposes for the Right to Education Act (RTE) as a part of Universal Education Program, which provides quality education to children (6-14 years) bridging the gender, social and regional gaps. Our constitution has laid a framework for Universalisation of Elementary Education to strengthen the social fabric by providing equal fruits to all echelons of the society. Art 21 inserted in the constitution through the 86th Amendment Act, 2002 provides free and compulsory education for all children in the age group of 6-14 years as a Fundamental Right. The Right to Education Act (RTE) 2009 represents the consequential legislation envisaged under art 21-A.

The salient features of the RTE Act 2009 as per the MHRD website are:

- Right of children to free and compulsory education till completion of elementary education in a neighborhood school.
- It clarifies that 'compulsory education' means obligation of the appropriate government to provide free elementary education and ensure compulsory admission, attendance and completion of elementary education to every child in the six to fourteen age group. 'Free' means that no child shall be liable to pay any kind of fee or

charges or expenses which may prevent him or her from pursuing and completing elementary education.

- It makes provisions for a non-admitted child to be admitted to an age appropriate class.
- It specifies the duties and responsibilities of appropriate Governments, local authority and parents in providing free and compulsory education, and sharing of financial and other responsibilities between the Central and State Governments.
- It lays down the norms and standards relating inter alia to Pupil Teacher Ratios (PTRs), buildings and infrastructure, school-working days, teacher-working hours.
- It provides for rational deployment of teachers by ensuring that the specified pupil teacher ratio is maintained for each school, rather than just as an average for the State or District or Block, thus ensuring that there is no urban-rural imbalance in teacher postings. It also provides for prohibition of deployment of teachers for non-educational work, other than decennial census, elections to local authority, state legislatures and parliament, and disaster relief.
- It provides for appointment of appropriately trained teachers, i.e. teachers with the requisite entry and academic qualifications.
- It prohibits (a) physical punishment and mental harassment; (b) screening procedures for admission of children; (c) capitation fee; (d) private tuition by teachers and (e) running of schools without recognition,
- It provides for development of curriculum in consonance with the values enshrined in the Constitution, and which would ensure the all-round development of the child, building on the child's knowledge, potentiality and talent and making the child free of fear, trauma and anxiety through a system of child friendly and child centered learning. (<http://mhrd.gov.in/rte>)

The policy-makers, for a long time now have faced the challenge of poor enrolment rates and high drop-out rates. The incidence is high for girls, children belonging to the minorities, tribals, migrants and the differently abled.

SSA ensures that every child with special needs, irrespective of their kind, category and degree of disability, is provided meaningful and quality education. Hence, a zero rejection policy has been implemented wherein no child having special needs should be deprived of access to schooling and proper education and taught in an amicable environment suited to his/her learning needs.

Chhattisgarh

Chhattisgarh is relatively a new state with mainly half the population being tribal dominated who are known for their arts and crafts. The state has 16 districts and in this paper, the focus is on Raipur, the capital and its adjacent district Mahasamund. The literacy rate in Chhattisgarh has improved steadily from 42.91 per cent in 1991 to 64.7 per cent (Census 2001) to 71 per cent (Census 2011).

Objectives

In this paper, the author explores the implementation of SSA in the universalization of education in two districts of Chhattisgarh namely Raipur and Mahasamund with special focus on access to schools, Student Classroom ratio (SCR), Special training

(Residential and Non –Residential) centres, Pupil-Teacher Ratio (PTR), availability of toilets and School management Committees.

Methodology

Both qualitative and quantitative approaches were used to gather data from teachers, students, staff members, parents and community people, and District officials using Interview schedule and questionnaire. Observation and Focused Group Discussions (FGDs) were used to collect in-depth data.

The paper is part of MoRD project “Monitoring and Evaluation of Sarva Shiksha Abhiyan in Chhattisgarh State” during 2013-14. As per the project guidelines, 40 government schools (20 Primary Schools and 20 Upper Primary Schools) were randomly selected from each district. In this paper, the capital of Chhattisgarh, Raipur district and the district adjacent to it, i.e. Mahasamund have been taken up. Some of the factors selected are providing enabling conditions for universalization of education and in their absence; the goal becomes a challenge itself. Hence, some of the factors have been discussed in this paper that are considered crucial in the process of universalisation of education.

Data Analysis

The following tables show the states of enabling conditions such as access to schools, Student Classroom ratio (SCR), Special training (Residential and Non –Residential) centres, Pupil-Teacher Ratio (PTR), availability of toilets and School Management Committees

i. Access

The first major point pertaining to schooling is access to schools. The rural areas in the country are still struggling for metalled roads so as to connect to the thresholds of developed areas. The schools were initially constructed at a distance and the children were found it tough to go to the schools, which resulted in regular absenteeism or heavy rates of dropouts. The way to schools were often not safe as children had to cross rivers, ponds, jungles, graveyards, fields or areas that were considered unsafe, especially for girls.

SSA ensures that schools are within close proximity hence the PS are within 1km radius and the UPS are within 3 km radius from the habitation. This has consequently resulted in regular attendance and high enrolment, prevented dropouts and absenteeism.

Table 1: Access to schools in Raipur and Mahasamund		
Access	Raipur	Mahasamund
Primary Schools	25 (62.5%)	24 (60.0%)
Upper Primary Schools	15 (37.5%)	16 (40.0%)
Total	40 (100.0%)	40 (100.0%)

It was seen that in Raipur, 25 (62.5%) Primary Schools and 15 (37.5%) Upper Primary Schools were within 1 km radius and 3 km radius from the habitation

respectively and in Mahasamund district, 24 (60.0%) Primary Schools and 16 (40.0%) Upper Primary Schools were in 1 km and 3 km radius from the students' houses.

ii. Student-Classroom Ratio

As per the SSA norms, an ideal Student-Classroom Ratio is 35:1 in Primary Schools and 40:1 in Upper Primary Schools. A conducive and comfortable seating pattern not only enhances the concentration and focus of children but also helps in monitoring the children in a better manner. A proper distance is maintained between children as they sit on jute mats rolled out on cement floors. It was seen that in Raipur district, the SCR in rural Primary Schools is 28:1 and in Urban Primary schools, it is 29:1. For Upper Primary Schools, in rural region, it is 53:1 and for urban Upper Primary Schools it is 51:1, while in Mahasamund district, in the rural Primary schools the Student Classroom Ratio is 29:1 and in urban Primary Schools it is 17:1. The monitoring team has observed that Student Classroom Ratio in rural Upper Primary School is 41:1 and in urban Upper Primary School it is 18:1.

iii. Special training (residential or non-residential)

Under the SSA framework, the existing non-formal and alternate schooling (including home based- education) option for children with disabilities (differently abled) has been re-casted as "special training". Initially, alternative or non-formal education was aligned with RTE Act for Out of School Children (OoSC) to academically assist for admission to an age-appropriate class in a regular school. The RTE Act identifies an OoSC on the following definition: *"A child 6-14 years of age will be considered out of school if he/she has never been enrolled in an elementary school or if after enrolment has been absent from school without prior intimation for reasons of absence for a period of 45 days or more."* So a provision of special training was formulated. It is also extended to the existing non-formal and alternate schooling (including home based education) option for children with disabilities (differently abled) has been re-casted as "special training". The Special Trainings are given to students who due to some reasons are unable to continue their schooling and consequently drop-out from the schools. Various factors such as migration, poverty, death in family, ill-health, strict teachers, or disinterest in studies are responsible for students opting out of school (Dreze & Sen, 1995; Miles & Singal, 2008). There are two types of special trainings provided under Sarva Shiksha Abhiyan. One is Special Residential Training Centres (SRTC) and another is Non –Residential Training Centres or NSRTC. Teachers as well as Education Volunteers are employed in these SRTC and NSRTC to provide education to the needy students that includes school dropouts and slow learners. While in the SRTC, in accordance with SSA norms, certain entitlements are given such as lodging facilities, MDM, books, bags and uniforms, the classes in NSRTC are conducted after school hours are over in the school premises itself.

In Raipur district, Special Residential Training Centers for admission of Out of School Children were seen. In some places, Non-Residential Training Centers are opened in the Primary Schools to provide Special training for the slow learners of the school. SRTC had inadequate TLM and the appointed teachers had not undergone trainings in a while. The teaching method was traditional in nature and they lacked modern TLM as well.

In Mahasamund district, SRTCs were found to be functional and with good infrastructure facilities. On the academic front, it was seen that in one of the SRTCs untrained graduates were appointed as special trainers. About 150 children were found to be enrolled with sample SRTC in Mahasamund. The SRTCs had good number of TLM that included toys, charts, maps, globe, microscope, and pictures.

iv. Pupil-Teacher Ratio

The Sarva Shiksha Abhiyan recommends that number of students per teacher in Primary schools should be 30:1 and in Upper Primary schools, it should be 35:1. Smaller classes allow teachers to focus more on the individuals and the class size reflects on the social dynamics of the pupils. It helps teachers to concentrate on each student's needs and help him/her perform better. Regarding the Pupil-Teacher Ratio in Raipur, it was seen in Primary Schools, the PTR is 53:1 and in Upper Primary Schools, it is 68:1. The data shows that in Mahasamund, in Primary Schools, the PTR is 26:1 and in Upper Primary Schools, it is 35:1.

v. Availability of Toilets

It is observed that unavailability of toilet facilities in schools is one major reason for the students to drop out of school, especially for girls. In Raipur district, 11 (44.0%) PS and 10 (66.7%) UPS has separate toilets for girls but only 2 (8.0%) PS and none of the UPS had incinerator facilities in girls' toilets.

Similarly, in Mahasamund district, 12 (50.0%) PS and 10 (62.5%) UPS had a separate provisions for girls' toilets but only 2 (28.6%) PS had incinerator in the girls' toilets. The lack of provision of running water in toilets is a matter of concern and often results in students opting for open defecation.

vi. Teaching learning Process

It is very essential that teachers focus on teaching process in a professional manner. It is essential that teachers use their live experiences in teaching in the class and cite examples to explain the concepts and make them even more interesting. It was seen that in Raipur district, teachers in 13 (52.0%) PS and 9 (60.0%) UPS were using live experiences while teaching in the class. Similarly, in Mahasamund, teachers in 10 (50.0%) and 10 (50.0%) UPS were found to be practicing the same.

Table 2: Teaching learning process in the sample schools												
Category	Rural		Urban		Rural		Urban		Total			
	Raipur	Mah	Rai	Mah	Rai	Mah	Rai	Mah	Rai	Mah	Rai	Mah
	PS	PS	PS	PS	UPS	UPS	UPS	UPS	PS	PS	UPS	UPS
Teacher using live experiences	8 61.5%	7 41.2%	5 55.6%	1 14.3%	5 41.7%	3 33.3%	4 66.7%	5 71.4%	13 52.0%	8 33.3%	9 60.0%	8 50.0%
Using of TLM in	7 53.8%	6 35.3%	2 22.2%	4 57.1%	6 50.0%	5 55.6%	2 33.3%	3 42.9%	13	10	4 26.7%	8 50.0%

the class									52.0%	41.7%		
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The government provide Teaching Learning Material (TLM) in all schools provided by to help teachers take the class in a better manner and enhance the quality of education. TLM grant of Rs 10,000 per year is granted.

vii. School Management Committees (Community Mobilization)

Under the RTE Act, School Management Committees are given immense importance. The SMCs are entitled with various roles that include preparation of School Development Plan, meaningful participation in school activities, etc. The SMC comprises of parents, local authority and school teachers. The RTE Act stipulates that fifty percent of the parents in the SMC will be women. The SMC is constituted within three months of the new academic year and reconstituted every two years.

The SMCs see to it that teachers are not engaged in non-academic pursuits. They also check that teachers maintain regularity and punctuality in attendance, organise regular meetings with parents to apprise them about their child's progress and do not engage in private tuition.

The SMC meetings are scheduled every six months positively but more than two meetings in a year may be organised for better monitoring and functioning.

Transparency and social accountability are maintained. Details of technical design, financial approvals, received and spent amount, muster rolls, books of accounts and any other information under RTI is to be shared in SMC meeting. Parents play a significant role in SMCs. They are the ideal unit for monitoring mechanism at the ground level. The SMC ensures the enrolment and attendance of all children. It makes sure that the children from disadvantaged and weaker sections are enrolled in schools, and do not face any sort of discrimination, and monitors that all not enrolled and dropout children are facilitated to participate in Special Training for age appropriate admissions. It sees to it that the differently abled children get proper admission and care. The SMC makes the School Development Plan and it helps in anchoring community awareness and participation efforts.

In Raipur district, it was seen that SMC is being constituted in all the sample Primary Schools and Upper Primary Schools. It was seen that in 12 (48.0%) Primary Schools and 5 (33.3%) Upper Primary Schools SMC members are familiar with their roles and responsibilities under RTE Act, 2009. They are familiar with their duties, which include participation and monitoring of school activities, checking MDM and participating in school functions. They were familiar with Data Capture Format, School Report Card and VER/WER. It was seen that in 12 (48.0%) Primary Schools and in 3 (20.0%) Upper Primary Schools, guidelines to prepare School Development Plan are given to SMC members. It was also observed that SMC members of 12 (48.0%) Primary Schools and 6 (40.0%) Upper Primary Schools are verifying teachers' attendance. Similarly, SMC members of 9 (36.0%) Primary Schools and 5 (33.3%) Upper Primary Schools are verifying students' attendance.

In Raipur district, it was seen that seen that 54.2% of the Primary Schools and 62.5% of the Upper Primary Schools have provided orientation on RTE to the SMC

members. The roles and responsibilities are oriented through one-day training program. Effective functioning of SMCs huge capacity building activity has been undertaken by the district and State, though they lack awareness about the same. Therefore, it is suggested that continuous training is to be organized at the school point and at Block level. The SMC members are given awareness about School Development Plan; they do not seem to be implementing it completely. They occasionally visit the school.

In Mahasamund district, it is seen that 54.2% of the Primary Schools and 62.5% of the Upper Primary Schools have provided orientation on RTE to the SMC members. Though the SMC members are given awareness about School Development Plan, they do not seem to be implementing it completely. It was observed that in 58.3% Primary Schools and 75.0%, Upper Primary Schools the SMC members verified the students' attendance and in 50.0% Primary Schools and 81.2% Upper Primary Schools they verified the teachers' attendance. SMC members hardly visited schools to monitor the school activities.

Discussion & Conclusion

SSA provides an opportunity for promoting social justice through basic education. It is an effort to recognise the need for improving the performance of the school system and to provide community owned quality elementary education in mission mode. The government of India has implemented various programs in the past for universalization of education such as Shiksha Karmi Project, Lok Jumbish, Operation Blackboard, and DPEP. Despite all policy initiatives and government efforts, the goal has remained elusive. The government set up various commissions/committees for fulfilling the goal and adequate budgetary provisions were made in all five-year plans. With various paradigm shifts, the government has been able to narrow down its focus which is mainly concentrated on access and enrolment. Once each child between 6-14 years is admitted in school, incentives such as MDM, free books, bags, stationary and uniforms are given to retain him/her in schools. Though the factor of retention is focussed upon, quality of education is ignored blatantly. The quality of education is affected by irregular attendance of teachers, overcrowded classrooms, ineffective teaching-learning processes, an inappropriate curriculum and dilapidated school buildings (AIF, 2011).

Power structures between Districts

The paper has highlighted the state of education in the capital of Chhattisgarh state i.e. Raipur and its satellite district, Mahasamund. To understand this phenomenon, Foucauldian perspective may be sought. Michele Foucault emphasizes upon relation between power and knowledge and how they are used as a form of social control through societal institutions.

Primary Schools at Mahasamund were observed to have school buildings but without the basic infrastructure such as a boundary wall, a ramp for CWSN, a CWSN toilet, separate toilets for boys and girls, a separate shed for preparing Mid-Day Meals, etc. Couple of schools had a pond nearby which posed a hazard to the little children. Schools that were next to a highway were also dangerous for the little ones. Some

students had to cross fields/graveyards/forests to reach their school and all this rendered great challenge and possibly dropping out of schools in due course of time.

Both Primary Schools and Upper Primary Schools in Raipur were observed to be better in condition as far as the location of schools, its infrastructure, and functioning were concerned. By looking at the results, it can be inferred that the status of schools is better in the Raipur district but the SRTC's are better in Mahasamund district. Migration from Mahasamund has resulted in high percentage of dropouts but tracking by officials has shown that the students who had migrated from Mahasamund had taken Transfer Certificates from their previous schools and got admission in new schools accordingly. Most of this migration is to Raipur. The better situation of schools in Raipur is also because of constant monitoring and evaluation by government officials. There are periodical audits and monitoring by officials which keeps the status of schools in Raipur maintained and better looked after as compared to Mahasamund. It is suggested that regular trainings to teachers be given in their own blocks so that they may attend and upgrade their skills. Strict monitoring of quality and maintenance of infrastructure of schools at Mahasamund along with monitoring of regular attendance of teachers in Mahasamund can definitely increase the efficiency of schools in Mahasamund too.

Challenges

Though the government is trying to implement the program in letter and spirit; certain challenges have slowed down the process. Firstly, the allocation of funds is a challenge in itself. Though the governments allocate budget every year, the distribution in different heads such as civil works, uniforms, stationary, Mid-Day Meal, etc. takes time. Sometimes, the salaries of teachers and cooks are delayed. Moreover, maintenance of transparency in expenditure is not maintained that results in problems in auditing. Secondly, lack of trained teachers is an issue. Most of the trainings are conducted in district headquarters and it is difficult for teachers from rural interiors to attend those meetings. The proposition of residential trainings fails too as it is difficult for women to absent themselves from household duties for five to seven days at a stretch.

The paper has highlighted the state of education in the capital of Chhattisgarh state i.e. Raipur and its satellite district, Mahasamund. In many places, especially at Primary Schools, mainly in Mahasamund, it was observed that a school building existed but without the basic infrastructure such as a boundary wall, or a CWSN toilet, separate toilets for boys and girls, a separate shed for preparing Mid-Day Meals, a ramp for CWSN, etc. Couple of schools had a pond nearby which posed a hazard to the little children. Schools that were next to a highway were also dangerous for the little ones. Not only that, some students had to cross fields/graveyards/forests to reach their school and all this rendered great challenge and possibly dropping out of schools in due course of time. Both Primary Schools and Upper Primary Schools in Raipur were observed to be better condition as far as the location of schools, its infrastructure, and functioning were concerned.

Suggestions

By looking at the results, it can be inferred that the status of schools is better in the Raipur district but the SRTCs are better in Mahasamund district. Migration from Mahasamund has resulted in high percentage of dropouts but tracking by officials has shown that the students who had migrated from Mahasamund had taken Transfer Certificates from their previous schools and got admission in new schools accordingly. The better situation of schools in Raipur is also because of constant monitoring and evaluation by government officials. It is suggested that regular trainings to teachers be given in their own blocks so that they may attend and upgrade their skills. Proper financial allocation and social audit of expenditure should be maintained and the community should be made aware of its rights in functioning of the schools. Regular monitoring of school activities and community participation can lead to making schools an integral part of the society.

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The logo for 'iafor' is centered on the page. It consists of the lowercase letters 'iafor' in a light blue, sans-serif font. The text is surrounded by two large, thin, curved lines that form a partial circle around it. One line is a light red color and the other is a light blue color, matching the text.

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***Examining Effects of Two Computer Programming Learning Strategies:
Self-Explanation versus Reading Questions and Answers***

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Abstract

The current study explored the differential effects of two learning strategies, self-explanation and reading questions and answers, on learning the computer programming language JavaScript. Students' test performance and perceptions of effectiveness toward the two strategies were examined. An online interactive tutorial instruction implementing worked-examples and multimedia learning principles was developed for this study.

Participants were 147 high school students (ages 14 to 18) of a computer introductory course in six periods which were randomly divided into two groups ($n = 78$; $n = 69$) of three periods each. The two groups alternated learning strategies to learn five lessons. Students' prerequisite knowledge of XHTML and motivation to learn computer programming were measured before starting the tutorial. Students largely expressed their preference toward self-explanation over reading questions and answers. They thought self-explanation as incurring much more work yet more effective. However, the two learning strategies did not have differential effects on students' test performance. The seeming discrepancy arising from students' preferred strategy and their test performance was discussed in the areas of familiar versus new strategy, difficulty of learning materials and testing method, and experimental duration.

Keywords: learning strategy, self-explanation, computer Programming, JavaScript

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Introduction

Computer programming has been historically difficult and frustrating for novice learners (Kelleher & Pausch, 2005). Studies show that 40 to 50 percent of first year programming students either had a below C grade or dropped out (Schuyler, 2011). Therefore, exploring effective instructional strategies is of prime interest among computer programming educators (Kert & Kurt, 2012; Renumol, Janakiram, & Jayaprakash, 2010). Teaching novice JavaScript learners is an even more intriguing undertaking because they are Web design enthusiasts coming into the new realm of computer programming mostly without prior knowledge. The supposed foundation of having learned Web design, along with the confidence it brings, could have falsely promised learners the same ease with learning JavaScript, which, on the contrary, presents a sudden surge of intrinsic cognitive load.

In the current study, a computerized interactive tutorial was developed to help students learning Web design tackle the challenges they are faced with learning JavaScript. The tutorial provided a multimedia learning environment that implemented the multimedia learning principles (Mayer, 2009, 2011) and worked examples (Sweller, 2006). Online multimedia instructional tutorials that implement worked-example strategy have been evidenced as effective (Kapli, 2011). In an online learning environment the built-in interactive feature could afford students an ample opportunity of practicing to acquire schema and encode it to long-term memory (Lee, 2008). Utilizing learning strategies to achieve desired learning outcomes is also important for learners (McNamara & Magliano, 2009). Even the intrinsically motivated learners should be guided with learning strategies because they do not necessarily have an adequate strategy repertoire (Renkl, 1997).

The specific interest of this study lies in the added effect from utilizing self-explanation (Kalyuga, 2009; van Merriënboer & Sluijsmans, 2009) and reading questions and answers (Kinniburgh & Shaw, 2009; Pappa & Tsaparris, 2011), two known learning strategies that have demonstrated positive effects in a variety of academic subjects, to determine which is more effective in learning JavaScript. This is the first study that sought differential effects of these two strategies in learning computer programming.

Self-explanation

Self-explanation takes place when learners explain concepts to themselves and verify their own understanding. Cognitive load theory proposes that self-explanation is effective because it generates germane cognitive load which contributes directly to learning (Kalyuga, 2009; van Merriënboer & Sluijsmans, 2009). Self-explanation is a domain-general constructive activity that directs learners' attention to the learning materials while checking on their understanding (Roy & Chi, 2005). Its process has been evidenced as helping learners comprehend unfamiliar text (McNamara, 2009; McNamara & Magliano, 2009) and develop computer programming concepts (Kwon & Jonassen, 2011).

Self-explanation engages learners to use their background knowledge to interpret the given instructional texts and examples (Chi, Bassok, Lewis, Reimann, & Glaser, 1989; Pirolli & Recker, 1994). Renkl (1997) observed that learners, drawing from

their own background knowledge, used the self-explanation strategy to explain to themselves the solution steps in worked examples. Self-explanation techniques used alongside proper instructional support can improve transfer; for example, when combined with direct instruction, self-explanation became more effective and facilitated transfer with persisting benefits over a delay (Rittle-Johnson, 2006).

Self-explanation can be carried out in different formats such as thinking-aloud (McNamara, 2009; McNamara & Magliano, 2009) or typing one's thoughts (Muñoz, Magliano, Sheridan, & McNamara, 2006). Less-skilled readers are able to make more frequent bridging inferences with typing self-explanation text than with speaking their self-explanation when they are dealing with science texts (Muñoz et al., 2006).

Research on self-explanation has been conducted on academic subjects like physics (Fukaya, 2011; van der Meij & de Jong, 2011) and mathematics (Durkin, 2011). However, studies examining effects of self-explanation on learning computer programming have been sporadic. The few studies consist of text learning of LISP in the early to mid-90's by Bielaczyc, Pirolli and their associates (e.g., Bielaczyc & Pirolli, 1995; Pirolli & Recker, 1994), an experiment on the controlled self-explanations with learning Structured Query Language (Yuasa, 1994), and recently one study regarding reflective self-explanations with learning JavaScript (Kwon & Jonassen, 2011). These studies demonstrated positive effects of self-explanation on learning computer programming.

Based on these previous works, the study required students to type their answers to the guiding questions and provided appropriate instructional support throughout the lessons. For example, after learners submitted their self-explanation answers, a window popped up with suggested answers as instructional support for the learners to verify their understanding.

Reading Questions and Answers

Reading is a prevalent learning method across subjects, such as English and mathematics, and across platforms, like textbooks and online tutorials. Conventionally, students have learned computer programming by reading materials from textbooks or electronic sources. Reading questions and answers helps students focus their attention (Raphael, 1982) and keep them on the right path of learning (Benito, Foley, Lewis, & Prescott, 1993; McIntosh & Draper, 1995, 1996). A similar, established learning strategy called question-answer relationship focuses on understanding the relationship between questions and answers derived from the learning materials. The effects of question-answer relationship approaches have been widely evidenced to be positive (e.g., Kinniburgh & Shaw, 2009; McIntosh & Draper, 1995, 1996; Ouzts, 1998; Pappa & Tsapalis, 2011; Raphael & Au, 2005). "Sources of information" is what is intended for students to identify through the implementation of question-answer relationship (Raphael, 1984; Raphael & Wonnacott, 1985). The "reading questions and answers" strategy examined in this study is a variation of question-answer relationship. Learning by reading questions and answers on a Web page, as the current study called for, is comparable to reading printed questions and answers in a paper textbook (Tillman, 1995) and should achieve comparable result.

The application of question-answer relationship has positive results with diversified learners such as skilled adults (Ouzts & Palombo, 2005), young children (Lawrence, 2002; Soptelean, 2012), older children in secondary education (McIntosh & Draper, 1995, 1996), and students with learning disabilities (Gavelek & Raphael, 1982). Examples of its effects included a science instruction in which students' reading comprehension of science texts was enhanced, and consequently, students' test scores improved in both subjects of science and reading (Kinniburgh & Shaw, 2009) and a mathematical instruction in which students' increased ability to identify the question-answer relationship improved their mathematical reasoning skills and also expanded upon their existing strategies of successful test-taking (Mesmer & Hutchins, 2002).

The Study

The current study is the first to study the effects of self-explanation on novice learning of JavaScript, differing from the study by Kwon and Jonassen (2011) which focused on students' prior JavaScript knowledge and reflective self-explanations after taking a test. The present study is also the first to examine the effect of reading questions and answers and compare the effects of the two strategies, on learning computer programming.

Students' prerequisite knowledge of XHTML and academic motivation to learn computer programming were used as covariates to increase precision of results. Motivation is essential for learning computer programming because it imposes high intrinsic cognitive load (Garner, 2002) and requires extensive practice (Law, Lee, & Yu, 2010). Motivation change is positively related to change in students' achievement in learning computer programming (Su, 2008). For the purpose of the study a composite score of the following motivation variables showing strong, positive relationships with learning, were included: students' self-efficacy belief, effort investment, and task value (Bandura, 1997; Usher & Pajares, 2009; Zimmerman, 2008).

This study examined two research questions: (a) is there a significant performance difference in the end-of-lesson test scores between the two groups of students provided with instructions for self-explanation versus reading questions and answers strategies; and (b) which learning strategy is perceived by students as superior for achieving a better understanding of JavaScript? To capture student perceptions, both quantitative and qualitative analyses were conducted.

Method

Participants

Participants ($N = 147$) were students at a high school located in a large, metropolitan school district of the southwestern United States. They were from diverse ethnic backgrounds with the vast majority being Hispanic-American (65% vs. school district average 42%) and African-American (17% vs. school district average 12%). The subjects were students of six periods of an introductory computer course with approximately equal number of students from freshmen to seniors. The ages ranged from 14 to 17 ($n = 143$) and 18 years old ($n = 4$) with the median age 16. Each group was randomly assigned three periods resulting in 78 students in group 1 and 69 students in group 2. The participating students had little to no previous computer programming knowledge. Earlier in this introductory computer course, all students were introduced to coding Web pages in XHTML, informed of this research study, and given the option to participate.

Materials

An online interactive multimedia tutorial with five JavaScript lessons was designed by utilizing worked examples and the cognitive principles of multimedia learning including the spatial and temporal contiguity, coherence, redundancy, and image and personalization principles (Mayer, 2009, 2011). The multimedia learning principles and worked examples were constant while the experimental variable was learning strategy.

To examine the second research question, all students were exposed to both learning strategies. After learning the first two lessons, group 1 self-explained to answer the guiding questions, whereas group 2 read the questions and provided answers. For the 3rd and 4th lessons, the two groups switched their learning strategies. For the 5th lesson, each group went back to its original learning strategy. As the first two lessons were the easiest and the fifth was the most difficult of the five lessons, this design configuration allowed materials of similar difficulty to be presented to each group.

The tutorial was hosted on an Internet Website but students had only restricted access from a classroom to control the place variable. The study took care to ensure that only eligible users were accessing the tutorial, all individual user received appropriate training materials intended for his or her group, and the learner activities (self-explanation narrations and testing) were recorded through the server.

Figure 1 is the flowchart of the instructional design. Each lesson was structured into five Web pages. Learners of both groups saw exactly the same pages except page 4. Each learner logged on through page 1, selected a lesson of interest on page 2, studied a demo and practiced on page 3, then practiced further on the upper part of page 4. The only difference appeared at the lower part of page 4. Students of the self-explanation group typed an answer to each of the guiding questions in the format of self-explanation, then could compare it with the suggested answer in a pop-up window after submission. Students of the reading questions and answers group read a same question with its answer provided simultaneously in a pop-up window. Then all the learners encountered the same end-of-lesson test on page 5.

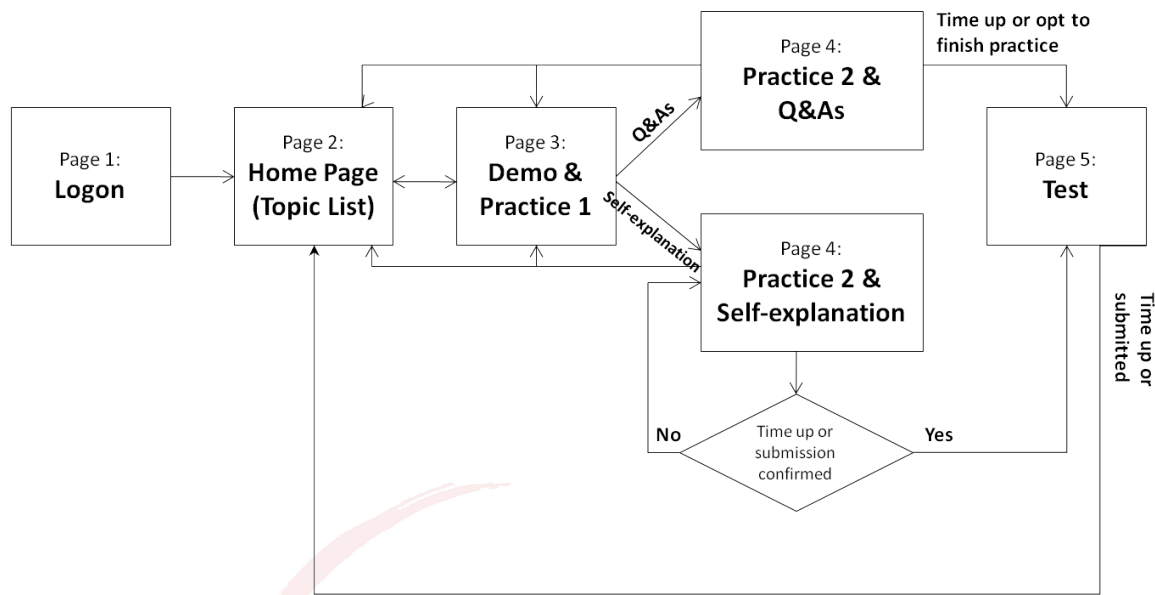


Figure 1: Overview of the instructional design in the format of a flowchart. At the completion of all five lessons, students took the end-of-study questionnaire to express their learning strategy preference and provide reasons for the choice.

Measures

XHTML Pretest. An XHTML test was administered to students before they were introduced to the online tutorial to evaluate their Web design background knowledge. The reliability estimate (Cronbach's alpha) was .85.

Motivation Questionnaire. A 23-item questionnaire was used to assess students' motivation levels in self-efficacy, effort expenditure, task value (attainment, utility, and intrinsic value) regarding computer language learning, and distractor items. A modified version of the *Self-Assessment Questionnaire* (Author) was utilized. Items in this questionnaire were modified to accommodate the current study from a well-established instrument on motivation and metacognition (see Hong, O'Neil, & Feldon, 2005, and O'Neil, Sugrue, Abedi, Baker, & Golan, 1992, for the history of instrument development and validation results). The reliability estimate was .90.

End-of-lesson Tests. The tests at the end of the lessons were developed to assess the level of a student's acquired topical, procedural knowledge. Students' answers were rated on a 5-point grading scale. The reliability estimate was .76.

End-of-study Questionnaire. The six items in the questionnaire inquired students' perceptions about the effectiveness and preference of either learning strategy and to explain why. The reliability estimate was .73.

Procedure

Participating students and their parents (if students were under age 18) signed the consent form in both English and Spanish. The study was conducted during regular school hours with 50 minutes in each period. A period was devoted for one lesson.

Data were collected on an XHTML test and a motivation questionnaire prior to starting the tutorial. During the study, the answers to the end-of-lesson test questions from both groups were collected. The responses to the end-of-study questionnaire were collected after all lessons were completed.

Data analysis

To examine the first research question, two analyses of covariance were conducted with a between-subject factor (group) and two covariates (XHTML test scores and motivation scores). Practical significance (η^2) was reported, along with statistical significance for each statistical test. Before testing research hypotheses, data was screened and statistical assumptions were tested. For end-of-lesson test scores, skewness of lessons 1, 2 and 5, and of lessons 3 and 4 were smaller than |1|, approximating normal distribution. Individual z-scores were all smaller than |3|. Homogeneity of variance/covariance assumption was met, $p = .71$, for end-of-lesson test scores of lessons 1, 2 and 5. For lessons 3 and 4, although the probability level for the test of homogeneity of variance/covariance assumption was .032, the slight departure from the homogeneity assumption would not pose a problem on the robustness of the hypothesis testing as the group sizes were similar and the data approximated normal distribution. The assumption for the homogeneity of regression coefficient was met, with p values ranging from .34 to .82 for two dependent variables for the two groups.

Students' preference choices were counted and frequency differences were examined with chi-square tests. Students' narrative responses were analyzed to elicit categories using the following procedure: (a) listing and compiling participants' responses; (b) category elicitation by judging, tentatively labeling, and inspecting tentative labels to determine common categories; (c) mapping all participants' responses onto the tentative categories and inspecting categories for further revisions; (d) re-evaluating responses and mapping onto the final categories as necessary.

Two coders independently conducted category elicitation and mapping students' responses. An intercoder agreement for elicited themes yielded an acceptable rate of 92.3%. After discussing the coder discrepancy, students' individual responses were remapped. For each theme elicited, students' reasons for their preferences were counted.

Results

To determine if student performances at the end-of-lesson tests were significantly different between the two groups, two analyses of covariance (ANCOVA) were performed. One on the mean end-of-lesson test scores of lessons 1, 2 and 5, and the other on lessons 3 and 4, and both with two covariates, XHTML and motivation scores.

The means, standard deviations and adjusted means and standard errors for students' end-of-lesson tests scores are presented in Table 1.

 Insert Table 1 about here

There was no statistically significant group difference in the adjusted means of end-of-lesson test scores for lessons 1, 2 and 5, $F(1, 143) = .940, p = .334, \eta_p^2 = .007$. Neither were those for lessons 3 and 4, $F(1, 143) = .105, p = .746, \eta_p^2 = .001$.

The end-of-study questionnaire was analyzed for students' perceptions on the two learning strategies. Although students consistently selected self-explanation (SE) over reading questions and answers (Q&A) as their preferred method of learning throughout the six items, the statistically significant difference was found only in Item 6 (Which method of learning helped you learn JavaScript better?), $\chi^2 = 6.37, p < .02$. Elicited themes and sample student reasons for their preference choice are presented below.

Item 1: "Which method helped you understand JavaScript concepts better?" Fifty-eight percent of group 1 students, who had started learning the first two lessons with the self-explanation method, chose SE, while the rest 42% chose reading Q&A. Students in group 2 also preferred SE (55%) over Q&A (45%). Sample responses are presented in Table 2. Due to space limitation, tables are provided for the first and last items. For Items 2 to 5, summarized results are presented (request for tables for these items can be directed to the authors).

 Insert Table 2 about here

Item 2: "Which method of learning helped you understand better the importance of utilizing JavaScript for Web development?" Group 1 students preferred SE (58%) over Q&A (42%); group 2 students chose Q&A (52%) over SE (48%). Sample responses for SE preference included: "If I explain it to myself in my own words, I will learn faster"; "If I read the method, I think I can get it myself instead of Q&As"; and "I understand better with my own explanation." Sample reasons for Q&A preference included: "Q&As because it had the answer there for you already"; and "Because when it asked me questions, it reminded me of what the topic was about and what to do."

Item 3: "After which exercise did you think that you could write your own JavaScript code?" Group 1 students preferred SE (54%) over Q&A (46%) and group 2 students also selected SE (57%) over Q&A (43%). SE preference sample reasons included: "Doing it yourself is better than just reading"; and "If I read it to myself & then re-read it & translate it in a way that I will understand & then think about it, I will get it." Sample responses for Q&A preference were: "It's way much easier for me to do because it's done for you already"; and "Q&As helped me write my own JavaScript code because it gave me review to what was coming towards me and gave me the understanding of what it was possibly going to ask me."

Item 4: "Which method of learning helped you visualize better what a given piece of JavaScript code will do in your Web page?" Group 1 students preferred SE (57%) over Q&A (43%); group 2 students also chose SE (55%) over Q&A (45%). Sample

responses for SE preference included: “I would've read it myself and try to get it the JavaScript code”; and “Because I feel like it explained it good, to the point where I really understood it.” A sample response for Q&A preference was: “Gives me the correct code.”

Item 5: “Which method of learning helped you understand better the importance of the correctness of writing the JavaScript code?” Group 1 students selected SE (57%) over Q&A (43%); group 2 students also preferred SE (57%) over Q&A (43%). Sample reasons for SE preference were: “Because it was laid out clear on what you have to do”; “Because self-explanation helps me understand it a little bit more”; and “I understand this better with explanation.” Sample responses for Q&A preference were: “I would be able to understand it better”; “Easier to understand”; and “Helps me remember more, explains it better.”

Item 6: “Which method of learning helped you learn JavaScript better?” Group 1 students preferred SE (64%) over Q&A (36%); group 2 students also chose SE (52%) over Q&A (47%). See sample responses in Table 3.

Insert Table 3 about here

Due to the similarity of the themes elicited from student responses throughout all questionnaire items, they were combined to count frequencies and chi-square tests were performed to determine the differences between SE and Q&A preferences (see Table 4).

Insert Table 4 about here

Several themes of students' reasons for preference demonstrated statistically significant differences between SE and Q&A. Those themes that demonstrated higher frequencies in SE included: “It affords (allows/forces) me to take the initiative to learn and express my knowledge”; “I get to learn and practice on my own/challenge myself”; and “The prompted answers enlighten me.” The themes with higher frequencies in Q&A included: “It shows me what to do exactly”; and “I don't have to do anything / easier than typing.” The following categories did not demonstrate statistical significance: “It provides more information”; “It is easier to understand”; “I learn better with examples”; “It helps me remember better”; “It's new/interesting/less stressful to me”; and “Just because.”

Discussion

Both self-explanation and reading questions and answers strategies have shown positive effects on learning in previous studies (Durkin, 2011; Raphael & Au, 2005), however this study is the first to compare their effects on learning computer programming. To strengthen the understanding, students' preferences and reasons were examined. Furthermore, the current study, along with the study by Kwon and

Jonassen (2011), filled the research gap after nearly two decades by examining the effectiveness of self-explanation strategy in learning computer programming.

Differential Effects of Two Learning Strategies on Learning Computer Programming

Students' end-of-lesson test performance did not differ. However, the questionnaire data revealed that students from both groups had more favorable impressions toward self-explanation over the familiar reading method. The reasons expressed by students have informed why self-explanation was perceived as better. The major elicited themes and their response frequencies are discussed.

Elicited themes

The elicited themes reflected students' attitude toward learning. Excluding the reasons that were "just because" or "obscure, incorrect or irrelevant," and only considering the reasons with more than zero count, the reasons among students' preference for self-explanation were more evenly distributed than those for the preference for reading questions and answers. Of nine themes with 203 counts of reasons for the self-explanation preference, the largest count was 66 for one reason ("I get to learn and practice on my own/challenge myself"). As for the reading questions and answers strategy, of the seven themes elicited with 216 counts, there were 140 counts toward one reason ("It shows me what to do exactly").

Students preferring reading questions and answers method appeared to like to be shown what to do, which is aligned with one of the benefits of the question-answer relationship strategy as guiding students in the right direction of learning (Benito et al., 1993; McIntosh & Draper, 1995, 1996; Raphael, 1982). Nevertheless, their remarks demonstrated passivity in their learning approach. On the other hand, the two themes for the self-explanation preference that demonstrated statistically significant differences and accounted for over 40% of the counts were: "I get to learn and practice on my own/challenge myself"; and "It affords (allows/forces) me to take the initiative to learn and express my knowledge." They seemed to indicate that students liked the challenges brought forth by self-explanation, appreciated the opportunity to take charge of their own learning, wanted to be in control of the learning process, and were happy to give their input during learning. These themes showed that students enjoyed active participation in learning.

One theme revealed that self-explanation had appealed to some students because it was new, interesting, or less stressful. According to students' verbal and written comments that they had never heard of such learning strategy before the study. There likely was a certain novelty effect. The conjecture for the "less stressful" comment was that the appearance of the traditional reading questions and answers caused higher anxiety in the individuals. Not surprisingly, no students considered it a new experience to read questions and answers, attesting to their previous exposure to reading.

Two themes for self-explanation: "The prompted answers enlighten me"; and "It helps me think" appeared to be supportive of the surmise that students would rather think about how to answer the questions on their own before verifying with the

prompted answers, while still drawing upon the knowledge provided. Students seemed to enjoy knowing that they had understood it correctly by reading the prompted answers after some delay, instead of being fed with immediate answers. On the other hand, some themes with preference for reading questions and answers also demonstrated higher frequencies with statistical significance such as students expressed their pleasure of “not having to do anything” or “easier than typing” because typing was only required by the self-explanation method, indicating their reliance on being guided with their learning.

Some reasons were given for both preferences. For example, one student who cited the reason, “It is easier to understand” described himself as a “Q&A type of person,” while another student citing the same reason but with the preference of self-explanation explained, “I understand better with my own explanation.” The reasons: “It provides more information”; “I learn better with examples”; and “It helps me remember better” were also expressed for both strategies. Students seemed to share these same opinions toward their respective preferred learning methods. It appeared that students considered their preferred method as the one that provided them with more information because that method had a better appeal to their learner characteristics than the other method did.

This alludes to the conjecture that both methods could appeal to certain learner characteristics and favorably help learners process the information. An understanding of the learner characteristics of target audience is essential for instructional designs. Tailoring the instructional designs to accommodate learner characteristics can help maximize students’ learning, especially for those who struggle. Teachers and instructional designers should strive to search and use well-evidenced, effective learning and instructional strategies in developing instructional materials.

There were extraordinarily high numbers of the reasons of “just because” and “obscure, incorrect or irrelevant”, probably caused by the low academic standing of the participants. Students’ poor reading comprehension could have hindered appropriate understanding for the strategies and their ability to reason (Schumm, Vaughn, Klingner, & Haager, 1992).

Proposed Suppositions for No Group Difference in Test Performance

Familiar versus new strategies. The reading strategy had a wide and consistent application with success in various subject matters (McIntosh & Draper, 1995, 1996; Raphael & Au, 2005). The participating students had experience with reading and were more ready to take advantage of it, as compared to the unfamiliar concept and procedure of self-explanation.

Difficult learning materials. The computer programming subject is described to have the appearance of a radical educational novelty (Dijkstra, 1989), imposing high levels of intrinsic cognitive load on novice learners (Garner, 2002). The questions in the current study were open-type, not multiple choice items, or those that require one correct answer (Pappa & Tsapalis, 2011). For instance, the question that asked how to tell if there was embedded JavaScript code in a Web file was a “think and search” question requiring learners’ understanding the text and formulating an answer in their

own words. Thus, the difficult learning materials and questions could have reduced the discriminating ability of the tests.

Short experimental period. Several 50-minute class periods spanning five days might be challenging for students to master a new learning strategy. More studies on the proper experimental duration are needed.

Limitations and Future Research

To answer the research questions, students had to experience both learning strategies. The design switched the subjects between the strategies due to the limitation of the subject pool and experimental period. We can refine this design to be more balanced by adding a fourth stage of learning switching to the other strategy one last time. We can also add clarification on the difference between treatments versus no treatment by adding a control group that experiences neither strategy.

The nonsignificant test performance might have been partly from the academically challenged students. The current findings warrant the need for continued research, especially with difficult subject matters or underperforming participants. To accommodate learner characteristics, the multimedia pre-training principle that helps prime learners before a formal study and the signaling principle that assists in orienting the learners throughout the study can be utilized and will help maximize the understanding of learning strategy effects.

Conclusions and Implications

Although students' test performance did not differ between the two strategies, students preferred self-explanation as it is interesting, challenging, and affording their active participation in learning. It was also evident that learner characteristics played an important role in students' preferences. Future design and development of instructions therefore should utilize research findings on effective learning strategies in general as well as adapt to local needs like learner characteristics. More studies on the strategy of self-explanation with learning computer programming in appropriate lengths of experiments are warranted to help ascertain its potential effect.

The interactive online tutorial developed for the current study can be used for online or classroom teaching. When utilized in the classroom, students can learn at their own pace and teachers can provide personalized assistance. Students can further utilize the tutorial after school for extended practice. The tutorial provides performance-related feedback, along with the multimedia learning instruction guidelines such as the spatial and temporal contiguity principles (Mayer, 2008, 2009, 2011), can keep learners interested and result in efficient instruction (Lee, 2008).

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Tables

Table 1

Means and Adjusted Means of End-of-Lesson Tests by Two Groups

	The Self-explanation Group	
	<i>M (SD)</i>	Adjusted <i>M (SE)</i>
Lessons 1, 2, 5	2.30 (1.24)	2.31 (0.13)
Lessons 3, 4	2.28 (1.32)	2.28 (0.17)
	The Q&A Group	
	<i>M (SD)</i>	Adjusted <i>M (SE)</i>
Lessons 1, 2, 5	2.50 (1.19)	2.49 (0.14)
Lessons 3, 4	2.37 (1.52)	2.36 (0.16)

n = 78 (self-explanation); *n* = 69 (Q&A).

Q&A = reading questions and answers.

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Table 2
The Elicited Themes and Sample Reasons of Students' Preference for Item 1

Elicited Theme	Sample Student Reasons for Preference	
	SE	Q&A
It shows me what to do exactly	(None)	"... I understand better when someone is telling me what to do"; "...when I don't know the answer, it shows and I learn it" (and 18 additional answers).
It helps me think	"To think about it"; "It made me think harder about the information from the lessons"; "It made me have to understand it enough to be able to explain it" (and 3 additional answers).	"Q&As helped reiterate what I already learned and tested me on the depth of my JavaScript knowledge"; "Because I can read the question and try to answer then I check if I got it right."
It provides more information	"Because it explains more of JavaScript."	"... when I don't know the answer, it shows and I learn it."
Doing nothing /easier than typing	(None)	"Because I understand better when someone is telling me what to do."
It is easier to understand	"I say self-explanation because it is way easier to follow along than to just read Q&As"; "I understand better," (and 5 more).	"Well if I do it and it shows me how to really do it, it helps me understand something"; "Reading questions and then reading the answer helps me the most because it's logical"; "I know how to learn by reading it" (and 12 more).
I learn better with examples	"The way it helped me understand is because the example and display examples help me then I try" (and 1 more).	"Because the way I learn is very unique. I learn by looking at examples."
It affords (allows/forces) me to take the initiative to learn and express my knowledge	"...you can explain it on how you learned it"; "... because being able to learn on our own by answering questions let us understand the concepts more comfortably"; "It made me have to understand it enough to be able to explain it" (and 1 more).	(None)
It helps me remember better	"It helped me remember some of the JavaScript concept by using self-explanation." (and 2 more).	"Helps me remember more."
I get to learn and practice on my own / challenge myself	"...because being able to learn on our own by answering questions let us understand the concepts more comfortably"; "It made me have to understand it enough to be able to explain it" (and 9 more).	(None)
New, interesting, less stressful	(None)	(None)
The prompted answers enlighten me	"I was getting my question answered by the prompted answers"; "Self-explanation because when information was given, I could read it and know what I am doing."	(None)
"Just because"	"It was better"; "It's better than Q&As"; "I always learn better like that"; "Self-explanation works best for me" (and 2 more).	"Because it explains to you the answer and question"; "It was better for me because I am a question and answer type of person"; "Because I learn better like that" (and 7 more).
Obscure, incorrect or irrelevant	"Self-explanation is a domain general constructive activity" (Author notes: Such explanation was not provided to students therefore is deemed irrelevant to reason of preference) (and 11 more).	"Some people can't remember the material and therefore cannot answer questions (Some answer for all)" (and 2 more).

Table 3
The Elicited Themes and Sample Reasons of Students' Preference for Item 6

Elicited Theme	Sample Student Reasons for Preference	
	SE	Q&A
It shows me what to do exactly	(None)	"...Q&As made me reassured that I knew how to write JavaScript code...tested my immediate wit"; "...you can get exact information..."; "...it gave me a question and I wouldn't have to look for the answer"; "Because it tells me the questions I should be looking for and the answers I should say" (and 40 more).
It helps me think	"I think to myself"; "It got me to think harder" (and 3 more).	"I think to myself."
It provides more information	"It explains more specifically" (and 1 more).	"Gives more info"; "...because it not only helped me review but gave me useful information, that could enable me get a full understanding"; "More detail was explained"; "Because there were more details."
Doing nothing/no typing	(None)	"I only need to read...to understand the concepts."
It is easier to understand	"...easier to understand"; "I can tell from my own wording that I understand more"; "Made me comprehend the material better"; "It's a lot easier to understand ..."; "Self-explanation is more helpful to understand" (and 2 more).	"I say both but Q&As helps me understand it"; "It explains better"; "I only need to read the Q&As to understand the concepts" (and 4 more).
I learn better with examples	"Self-explanation clearly gave me examples"; "It helped me learn better by giving examples..."	(None)
Taking the initiative to learn & express knowledge	"I think both helped, but self-explanation helped more by practice" (and 1 more).	(None)
Helps remember better	"I remember better by explaining to myself."	(None)
I get to learn and practice on my own / challenge myself	"...because if put in your own words it's easier for you"; "I can tell from my own wording that I understand more"; "I can explain to myself what's going on"; "It gave me the code to study and type on my own" (and 9 more).	(None)
"...less stressful"	"...all I can say it was less stressful."	(None)
The prompted answers enlighten me	"Because it explains it like an adult/professional would"; "Because after you type, it tells you and explains it to you."	(None)
"Just because"	"...teaching me the best way to use JavaScript"; "Because it just helps you understand a lot more than Q&As" (and 4 more).	"Because questions and answers help me better."
Obscure, incorrect or irrelevant	"Am not sure which one may help me learn the JavaScript" (and 12 more)	"It helped me to interact." (Author notes: There is no interaction with Q&As.)

Table 4
The Elicited Themes and Frequencies of Students' Preference

Themes	SE	Q&A	χ^2
It shows me what to do exactly	0	140	140.00 ^{***}
It helps me think	26	8	9.53 ^{**}
It provides more information	11	10	0.05 ^{ns}
I don't have to do anything/Easier than typing	0	5	5.00 [*]
It is easier to understand	43	45	0.05 ^{ns}
I learn better with examples	10	4	2.57 ^{ns}
It affords (allows/forces) me to take the initiative to learn and express my knowledge	24	0	24.00 ^{***}
It helps me remember better	10	4	2.57 ^{ns}
I get to learn and practice on my own/challenge myself	66	0	66.00 ^{***}
It's new/interesting/less stressful to me	3	0	3.00 ^{ns}
The prompted answers enlighten me	10	0	10.00 ^{**}
"Just because"	36	30	0.55 ^{ns}
Obscure, incorrect or irrelevant	70	15	35.58 ^{***}

* $p < .05$. ** $p < .01$. *** $p < .001$. *ns* = not significant.

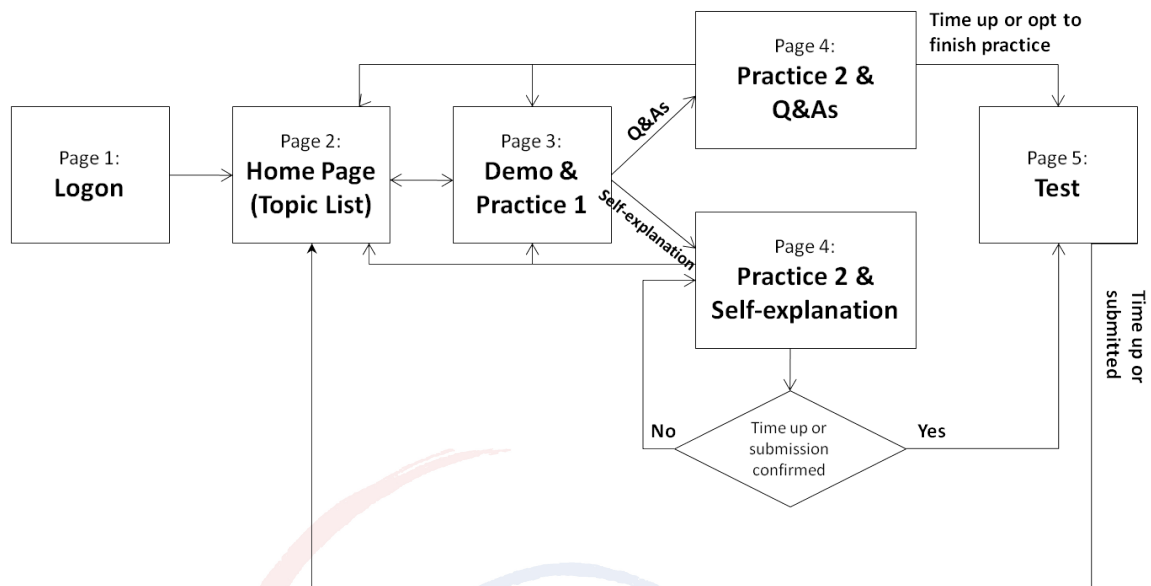
Figure

Figure 1. Overview of the instructional design in the format of a flowchart.

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If You Write Back, Do It in English¹

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Abstract

During the entire European colonial era, the colonisers were able to impose their language/s to the subalterns due to political, economic and social superiority of the Centre/s over their colonial Peripheries. Moreover, in certain aspects, the Centres have managed to maintain that dominant position in some of the former colonies even after they gained independence, at least regarding the use of the coloniser's language. Notwithstanding the national and political factors, not to mention the logical choice of an indigenous language, many postcolonial states have chosen to retain a European language as the formally recognised one, and to keep it as the major medium of instruction, from primary to higher education, to this very day. Thus, for instance, though numerous local languages are spoken in India (over 1,600) and Pakistan, English is one of only two official languages there, in addition to Hindi in India, and Urdu in Pakistan. A similar situation is found in Sri Lanka, where the two official languages are Sinhalese and Tamil, but English also plays an important role as the Constitutionally recognised *link language*. Besides education, English is mostly used in science, economy and commerce in these countries, with the explanation that it helps position them globally. The authors of this paper will endeavour to analyse the reasons for and against future education in the coloniser's language, within the framework of post-colonial theory reflected in the famous book *The Empire Writes Back: Theory and Practice in Post-Colonial Literatures*, and some other seminal works.

Keywords: Education, the English language, post-colonialism, The Empire Writes Back

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Introduction

English colonial rule in South Asia², or more precisely the Indian subcontinent, was initiated at the onset of the 17th century, when the so-called Governor and Company of Merchants of London trading into the East Indies, nowadays better known as East India Company, was granted a Charter by Queen Elizabeth I, on the 31st December 1600. What started as trade contacts in the 16th century, soon became administrative control, and then turned into political domination and colonial exploitation as from the 18th century, lasting until the mid-20th century, when most British colonies were given independence.

Together with their laws and factories, the English colonisers also brought to India their culture and language, which were accepted by the native population for various reasons. In addition to that, the English were more lenient and polite than other European colonisers, and they also showed interest in and respect for the culture and habits of the indigenous population, which even led to numerous interracial marriages, hence many of them decided to stay and live in India.

However, the English administration was quickly developing and soon there were not enough clerks for the civil service, so they started recruiting local population. Of course, the English were given senior positions, but even the native staff in lower positions were required to speak the coloniser's language. That is why they were not only trained as administrators but also taught proper English, while special schools in which it became the primary medium of instruction were also established at that time.

The Role of English in India

This contact between English as the imported language and the local Indian population was soon further boosted by several factors, which Kachru defines as three distinct phases that were at first independent, but later on joined and led to English becoming firmly rooted in India for ages to come:

The first phase comprises the efforts of the missionaries who went to South Asia essentially for proselytizing purposes. The second includes the efforts of a small group of Lankans and Indians who were fascinated by the progress of the West and desired to use the English language as a vehicle for scientific and material progress. The third was a political phase which firmly established the English language in South Asia. (Kachru, 1983, p. 19).

Although it is true that English missionaries went to the East above all in order to propagate the Christian religion, which implied Western culture and ideas, they also played a major role in spreading the English language, primarily by introducing the Western system of education, in which knowledge was accessible only to those fluent in English. In his analysis of Charles Grant's³ Observations on the state of society

² Above all the area which presently consists of three independent countries: India, Pakistan, and Sri Lanka. Though this paper focuses on the situation in India, the status of English is quite similar in the remaining two countries.

³ Charles Grant (1746-1823) was an influential British politician, a Member of Parliament, and Chairman of East India Company.

among the Asiatic subjects of Great Britain (1792), Homi K. Bhabha rightly points to the fact that

Grant's dream of an evangelical system of mission education conducted uncompromisingly in the English language, was partly a belief in political reform along Christian lines and partly an awareness that the expansion of company rule in India required a system of subject formation – a reform of manners, as Grant put it – that would provide the colonial with 'a sense of personal identity as we know it'. (Bhabha, 1994, p. 87).

This concept of social and even political control gained by reforming colonial subjects was further developed to its extreme by the renowned Lord Macaulay⁴ whose impact on all walks of life in India is still more than significant. Having highlighted in his Minute on Indian Education (1835) that "the English tongue is that which would be the most useful to our native subjects", since for the coloniser this seemed as truth and reality, Macaulay reached the well-known conclusion, which forever changed the Indian civilisation:

We must at present do our best to form a class who may be interpreters between us and the millions whom we govern; a class of persons, Indian in blood and colour, but English in taste, in opinions, in morals, and in intellect. To that class we may leave it to refine the vernacular dialects of the country, to enrich those dialects with terms of science borrowed from the Western nomenclature, and to render them by degrees fit vehicles for conveying knowledge to the great mass of the population. (as cited in Thirumalai, 2003).

Not only did Macaulay advocate English as the instruction medium, but he also opted for Western content and concepts to be taught in Indian schools, in order to further disseminate Occidental knowledge throughout the Colony/Periphery. The Indian education system was thus supposed to start training the 'mimic man' – as V.S. Naipaul⁵ would put it – through the process which Bhabha named 'mimicry', that can be traced in many literary works as 'colonial mimesis' (Bhabha, 1994, p. 87). Once the English language was introduced, not only in Indian schools, but even as the official language of the entire country, it was there to stay until this very day. Furthermore, Macaulay compared the importance of English for Indians to that of Greek and Latin for Europeans of the early 16th century, as a language which helps diffuse knowledge, purify taste, and develop arts and sciences (cf. Thirumalai, 2003) – briefly said, the modern *lingua franca*.

The spreading of the coloniser's language and of the Occidental model of education was in fact much more than it seems on the surface, since English was also the carrier of Western knowledge, norms and culture, or as Ashcroft, Griffiths and Tiffin duly underline in their famous work *The Empire Writes Back: Theory and Practice in Post-Colonial Literatures*:

One of the main features of imperial oppression is control over language. The imperial education system installs a 'standard' version of the metropolitan

⁴ Lord Thomas Babington Macaulay (1800-1859) was a famous British politician and historian, who served as a member of the Supreme Council of India for four years (1834-1838).

⁵ Nobel prize winner V.S. Naipaul (1932-) published his novel *The Mimic Men* in 1967.

language as the norm, and marginalizes all ‘variants’ as impurities. ... Language becomes the medium through which a hierarchical structure of power is perpetuated, and the medium through which conceptions of ‘truth’, ‘order’, and ‘reality’ become established. (Ashcroft, Griffiths, and Tiffin, 2004, p. 7).

Another suitable and very powerful medium for conveying Occidental values and norms to the natives was English literature, which started being taught in Indian schools regardless of differences between the two civilisations:

The strategy of locating authority in these texts all but effaced the sordid history of colonialist expropriation, material exploitation, and class and race oppression behind European world dominance ... the English literary text functioned as a surrogate Englishman in his highest and most perfect state (Viswanathan, 1987, p. 23).

The importance of the introduction of the coloniser’s literature in Indian schools is also emphasised by Gayatri Spivak, who warns that the nineteenth-century British literature should not be read “without remembering that imperialism, understood as England’s social mission, was a crucial part of the cultural representation of England to the English. The role of literature in the production of cultural representation should not be ignored.” (Spivak, 1999, p. 113).

Naturally, all of this was possible only thanks to what Kachru calls ‘the second phase’, or in other words, with the help of Indian intellectuals “who preferred English to Indian languages for academic, scientific and other international reasons.” (Kachru, 1983, p. 21). This is how Macaulay on his side explains the status of English in India:

In India, English is the language spoken by the ruling class. It is spoken by the higher class of natives at the seats of Government. It is like [*sic!*] [*recte* likely] to become the language of commerce throughout the seas of the East. It is the language of two great European communities which are raising, the one in south of Africa, the other in Australasia; communities which are every year becoming more important, and more closely connected with our Indian empire. ... There are in this very town natives who are quite competent to discuss political or scientific questions with fluency and precision in the English language. (as cited in Thirumalai, 2003).

When Kachru points to what he calls the third, or ‘political phase’, in the introduction of the English language in India, he specifically implies what Macaulay means by mentioning ‘the ruling class’ and ‘the higher class of natives at the seats of Government’, although he adds that “there were clearly two views about educating the people of South Asia in English”: those who favoured the coloniser’s language, and the others who were “against the use of English as a compulsory language” (Kachru, 1983, pp. 21-22). However, this political impact was the strongest in the 20th century, when two greatest politicians in entire Indian history – Gandhi⁶ and Nehru⁷ – encouraged the use of English:

⁶ Mohandas Karamchand Gandhi (1869-1948), better known as Mahatma Gandhi, was the main leader of the Indian independence movement in the colonial era, and the President of the Indian National Congress.

In the long, uneasy, and interminable task of making English an Indian language, Mohandas Karamchand Gandhi and Jawaharlal Nehru are central figures. Each took the alien language of rule and found ways to make it intimate, fluent, and cantankerous. English made the empire, but they showed how it could be used to unmake it – how the language could be a tool of insubordination and, ultimately, freedom. (Khilnani, 2013, p. 151).

Besides writing their speeches and works (autobiographies, essays and articles, among others) in English, Gandhi and Nehru also “kept a political commitment to English as a language of public communication ... recognising it as a vital link not just to the wider world but also between Indians themselves.” (Khilnani, 2013, p. 152). Nonetheless, until the 1940s, both Gandhi and Nehru had a rather negative and critical opinion regarding the use of English in India, and it was only later that “their views about the social and cultural functions of English changed” (Khilnani, 2013, p. 172), and they started realising the extent to which the coloniser’s language was important for the nationals of their country, so that near the end of his life Gandhi even wrote that “The rule of the English will go because it was corrupt, but the prevalence of English will never go.” (Khilnani, 2013, p. 173), while Nehru’s statement “English is our major window on the world.” has become almost proverbial.

Gandhi’s prediction turned out to be so true when the Constitution of 1950, which provided for abolishing the status of English⁸ in India, was amended by the Official Languages Act in 1963, due to wide-scale protests in the states where Hindi is not spoken and their inhabitants feared that it would be imposed upon them as the sole official language. In fact, their fears partially came true because both English and Hindi continue to be obligatory languages in all public schools⁹, together with the third, locally spoken language. In private schools English is the primary medium of education, with Hindi or the official language of the state in which the school is located being a compulsory subject as well. English is also the teaching language at Indian universities, a few of which have recently started offering courses in state languages, but only in addition to English as the basic language of higher education. Moreover, it must be borne in mind that education is only a part of the wider picture, and that postcolonial states – India among them – “were often tied to former colonial administrative, legal and economic systems that limited their independent action. This effectively allowed the continued control of many of these states in the period after independence” (Ashcroft, Griffiths, and Tiffin, 2007, p. 175).

Of course, the continued role of English has been objected to by numerous renowned Indian personalities, and even several widespread nationalistic campaigns requesting that English as the symbol of colonial rule be immediately eradicated. Among these, the most prominent were *Angrezi Hatao* (1957) and *Jan Sangh* (1963), the movement which included such influential figures as the tenth Prime Minister of India Atal Bihari Vajpayee. Although the use of English in India still has many supporters,

⁷ Jawaharlal Nehru (1889-1964) was the first Prime Minister of India, since it gained independence on 15 August 1947, until his death.

⁸ The first Indian Constitution of 1950 stipulated that English would be used as one of the two official Indian languages only for fifteen more years, as a transitional measure until 1965, when Hindi would become the only official language.

⁹ In India, there are some 688,000 primary schools, 110,000 secondary schools, 17,000 colleges, 47 central (national) and 274 state universities (<http://www.mapsofindia.com/education/>).

primarily those who are opposed to Hindi becoming the only national language, those have been criticised from all sides. They are usually ridiculed as Anglicised, scornfully called ‘Macaulay’s Children’¹⁰, and accused of having neglected their own language(s), culture(s), and tradition(s). There are also some people who cannot forget that this is the language of the former coloniser, hence the opinion that “The clumsy Victorian English hangs like a dead albatross around each educated Indian’s neck” (Jyoti, Cutts, and Sen, 2006, p. 400).

Similarly, the works of Indian authors writing in the English language, the so-called Indian English literature, is considered to be “a historical aberration and a literary dead-end” (Mehrotra, 2003, p. 15), or even worse, “a post-colonial anomaly, the bastard¹¹ child of Empire, sired on India by the departing British; its continuing use of the old colonial tongue is seen as a fatal flaw that renders it forever inauthentic” (Rushdie, 1997, p. xii). Another group of opponents, those with a nationalistic mindset, consider that English as a foreign language simply cannot communicate the thoughts of Indian people:

Questions regarding the use of English and the identification of the Indianness of the subject matter have been the main concern of the critics. Nationalistic rejection of English was coupled with an acceptance of the Whorfian hypothesis that a consciousness conditioned by an Indian Language could not be conveyed through English. (Uraizee, 1993, p. 220).

The most striking statement, however, was made by one of the greatest Indian writers ever, Sri Aurobindo Ghose¹², who himself created his works exclusively in English, but this did not prevent him from thus challenging the authors who choose to do so:

The language which a man speaks and which he has never learned, is the language of which he has the nearest sense and in which he expresses himself with the greatest fullness, subtlety and power. He may neglect, he may forget it, but he will always retain for it a hereditary aptitude, and it will always continue [*sic!*] [*recte* continue to be] for him the language in which he has the safest chance of writing with originality and ease. To be original in an acquired tongue is hardly feasible. The mind, conscious of a secret disability with which it ought not to have handicapped itself, instinctively takes refuge in imitation, or else in pathos and the work turned out is ordinarily very mediocre stuff. It has something unnatural and spurious about it like speaking with a stone in the mouth or walking upon stilts. (Sri Aurobindo, 2003, p. 107).

Contrary to Sri Aurobindo, one of the fathers of the Indian English literature, Raja Rao¹³, did not consider English to be an ‘acquired’ or ‘alien’ language, and he had an extremely logical explanation for the widespread use of English in India:

¹⁰ Or even “Macaulay’s bastards” (Desai, 1985, p. 122).

¹¹ It is rather interesting that Anita Desai and Salman Rushdie both use the same word to refer to the persistence of English in India.

¹² Sri Aurobindo Ghose (1872-1950), a Hindu poet and philosopher, was very active in the Indian independence movement, while his most noted literary works are the epic poem in twelve books *Savitri: A Legend and a Symbol* (1950/51), and *The Life Divine* (1939/40) about the Indian metaphysical thought.

¹³ Together with Mulk Raj Anand and Rashipuram Krishnaswamy Narayan, Raja Rao (1908-2006) is considered to be a forefather of the contemporary Indian English literature. His main works are novels:

English is not really an alien language to us. It is the language of our intellectual make-up – like Sanskrit or Persian was before – but not of our emotional make-up. We are all instinctively bilingual, many of us writing in our own language and in English. We cannot write like the English. We should not. We cannot write only as Indians. We have grown to look at the large world as part of us. Our method of expression therefore has to be a dialect which will some day prove to be as distinctive and colourful as the Irish or the American. (Rao, 1971, pp. 5-6).

Another famous writer of Indian origin, Salman Rushdie¹⁴, considers that for Indians English is a convenient ‘tool’, and that it has become “an essential language in India” owing to its use in the fields of technical vocabulary and international communication, “but also simply to permit two Indians to talk to each other in a tongue which neither party hates.” (Rushdie, 2010, pp. 64-65). According to Rushdie, an additional reason why English is so popular in India, especially among contemporary writers, is the fact that translation of works from Indian languages other than English is scarce, and even the best writers who create in other Indian languages are not known outside India, since those writing in English “seize all the limelight” (Rushdie, 2010, p. 69). Stressing that the spreading of the English language throughout the world is only partly the consequence of the British colonisation, since the role of ‘linguistic neo-colonialism’ of the United States of America cannot be neglected, Rushdie rather positively concludes the following:

I don’t think it is always necessary to take up the anti-colonial – or is it post-colonial? – cudgels against English. What seems to me to be happening is that those peoples who were once colonized by the language are now rapidly remaking it, domesticating it, becoming more and more relaxed about the way they use it. Assisted by the English language’s enormous flexibility and size, they are carving out large territories for themselves within its frontiers. (Rushdie, 2010, p. 64).

This is probably what Ashcroft, Griffiths and Tiffin mean when they assert that postcolonial writers are facing the challenge “to adapt the colonial language to local needs” (Ashcroft, Griffiths, and Tiffin, 2003, p. 284). In their influential work *The Empire Writes Back: Theory and Practice in Post-Colonial Literatures*, they point to the fact that the colonised use the coloniser’s language in order to bridge the gap that exists between their different worlds. During this process of using/appropriating it, bridging the gap, or writing back, that language of the former coloniser “is adopted as a tool¹⁵ and utilized in various ways to express widely differing cultural experiences” (Ashcroft, Griffiths, and Tiffin, 2004, p. 38). The authors of *The Empire Writes Back* add, however, that this process is not at all simple because its essence is in fact the response of the Periphery to the Centre and the rejection of its power, because the

Kanthapura (1938), *The Serpent and the Rope* (1960), *The Cat and Shakespeare* (1965), *Comrade Kirillov* (1976), *The Chessmaster and His Moves* (1988), and collections of short stories: *The Cow of the Barricades and Other Stories* (1947), and *The Policeman and the Rose* (1978).

¹⁴ Salman Rushdie, born in Bombay in 1947, is the winner of *The Best of the Booker* for his novel *Midnight's Children* (1981), and the author of many other books, including: *Shame* (1983), *The Satanic Verses* (1988), *The Moor's Last Sigh* (1995), *The Ground Beneath Her Feet* (1999), *Fury* (2001), *Shalimar, The Clown* (2005), *The Enchantress of Florence* (2008), *Luka and the Fire of Life* (2010), *Joseph Anton: A Memoir* (2012), and *Two Years Eight Months and Twenty-Eight Nights* (2015).

¹⁵ It should be noted that they use the same word – ‘tool’, as Rushdie did in *Imaginary Homelands*.

coloniser's language is seised/captured, brought under the influence of the language of the colonised, appropriated/reconstituted/remoulded to new usages, and thus de-colonised. The very meaning which some words used to have in the coloniser's language is reversed and new, sometimes even opposite, meanings are 'inscribed' in these words, thus deconstructing the linguistic stability and cultural authority of the Centre (cf. Ashcroft, Griffiths, and Tiffin, 2004, pp. 37-38). Or – as Salman Rushdie once said – to “conquer English is the only way to make us free” (as cited in *Lingua Franca: Chimera or Reality?*, 2011, p. 29).

Conclusion

Despite the controversy regarding the use of English in India, the language of the former coloniser has persisted up to the present time – entire seven decades after the country gained its independence. On the basis of the previous analysis in this paper, we can conclude that there are many disadvantages, but also many advantages of this cultural and linguistic phenomenon.

On the one hand, the huge number of languages spoken in India¹⁶ has always hindered communication between different ethnic groups. One of the two official languages – Hindi, despite being the language spoken by the majority of the population, is related to the privileged elite in the northern states of the country, and therefore opposed to by its southern inhabitants. That is why English as the second official language is a wise compromise, because it has taken up the role of unifying the nation, once upon a time played by Sanskrit. Secondly, regardless of the North-South divide, all over the country underprivileged castes used to be negatively marked by the languages they spoke, so for them English is the symbol of liberty because it erases the differences between castes, religions, and ethnic groups.

On the other hand, the importance and power of English were recognised early by the Indian rich elite and intelligentsia, whose members have traditionally been educated at the best British universities. They are aware that the English language provides them with increased opportunities, not only when they speak it abroad, but also in their motherland, where they assume some of its power and prestige. Even the governmental authorities understood the value of English and for that reason kept it as the medium of official communication, because it was obvious that this would contribute greatly to all aspects of India's growth, as well as its inclusion in the global economic developments.

To top it all off, the following quote shows an extreme example for the case when even those who want English to be eradicated still prefer to use it in their campaign: “A few years ago during a march in support of Hindi *against English* organised in India, demonstrators carried banners *in English*” (*Lingua Franca: Chimera or Reality?*, 2011, p. 25, emphasis added). It is precisely this power of the English language that will probably help it keep its top place in India for many years to come, given that

Throughout India, there is an extraordinary belief, among almost all castes and classes, in both rural and urban areas, in the transformative power of English.

¹⁶ To be more precise, exactly 1,652 languages (cf. Prakash, 2007, p. 62).

English is seen not just as a useful skill, but as a symbol of a better life, a pathway out of poverty and oppression. ... we cannot ignore the way that the English language has emerged as a powerful agent for change in India. (Graddol, 2010, p. 124).

Therefore, we can conclude that, although the fight against the supremacy of the former coloniser's language has not stopped, even those who oppose it realise that English is an extremely powerful medium which can be used to make oneself heard farther and to reach wider audiences.



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***Guidelines on Enhancing Education Quality in Film and Digital Media
for Private Universities***

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Abstract

This study aims at seeking guidelines on enhancing education quality in film and digital media curriculums offered by private universities in Thailand. By conducting a literature review and in-depth interviews with key experts in film and other related digital media industries: executives of a post production company, an equipment rental company as well as a film making company, film directors, a screenwriter, an acting trainer, cinematographers, a sound designer, an editor, a film critic, a director of acquisitions, a deputy director of Thai Film Archive, as well as a fashion editor and photographer, this research has found that private Thai universities need to devise new strategies for their curriculum development. This should start from admission process, incubation, curriculum design, and learners' language skills so that the private institutions can produce graduates capable of meeting the market demands and competing regionally and globally.

Keywords: Education Quality, Curriculum Development, Film and Digital Media Curriculum, Thailand

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Introduction

In response to the government's digital policy, Thailand is making a transition to digital economy and further developing its potential at regional and global levels. Innovations and technologies are applied to the country's value adding and competitiveness enhancement. Some of these national prime movers have already begun since the implementation of creative economy policy. In fact, the foundation of either creative or digital economy is the driving of economy through knowledge. In many countries, main mechanisms driving digital economy include digital commerce, digital entrepreneurs, digital innovation, and digital content. In terms of digital content, movies, music, TV shows, electronic media, software programs and games are expected to take key roles in digital economy like what is ongoing in the US and Europe. Digital media will replace traditional ones in different platforms and multiply in value.

According to the Eleventh Higher Education Development Plan (2012-2016) as well as the Twelfth (2017-2021), Thailand has been facing rapid changes in society, economy, politics, energy technology, and the environment, which has a far greater impact than before. Examples of these changes include an attempt to keep pace with the global economy and the economic integration under ASEAN free trade agreement with China, Japan, and India. Changes in global society have greatly affected Thai society, namely the coming of aging society, materialistic society, and education quality-based society, especially quality of university graduates. Issues of energy and environmental crisis, particularly climate change, have worsened natural disasters. Therefore, the Thai higher education from 2012 to 2016 needs to progressively develop into a knowledge resource in response to such a crisis and lead to the sustainable development at local and national levels. Further, it should take part in enhancing national and international competitiveness, with a focus on quality in the development of human resource and Thai society. To do so, the higher education should enable people to achieve their potential and meet the needs of labor market so as to support themselves and society, with integrity and responsibility, including being physically and mentally healthy. Subsequently, Thai people will be able to improve the economy using knowledge, technology, innovation, and creativity, on environmentally friendly production and consumption bases, which ultimately leads to the sustainable national development. This can be achieved through the proactive administration of higher education as a main vehicle to the 2016 vision: "higher education is a knowledge source of producing human power of quality, capable of sustainably developing the nation as well as creating a lifetime learning society, in accordance with the Eleventh National Economic and Social Development Plan (2012-2016) on the basis of self-sufficiency philosophy, with a leading role in ASEAN and the aim of international quality in higher education" (Office of the Higher Education Commission, 2015).

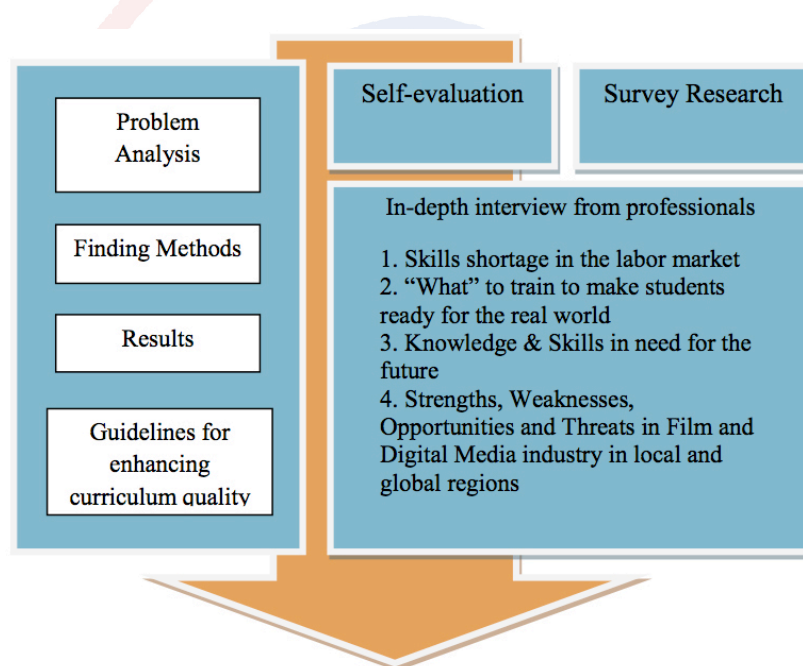
II. Research Objectives

1. To examine the status of film and digital media curriculums offered by universities in Thailand.

2. To indicate guidelines in improving the curriculum for higher quality and keeping up with technology; thereby being able to produce graduates in response to market demands.
3. To analyze and synthesize information regarding the development and management of the curriculum so as to make them more appropriate for the Thai context of private universities, including contribute to the film and digital media industry in Thailand.

III. Conceptual Framework

This research has drawn on the work of Saylor and Alexander (1974) which proposed a process to build or develop a curriculum in four stages: 1) goals, objectives and domains; 2) curriculum design; 3) curriculum implementation; and 4) curriculum evaluation. In addition, this study has explored the current information and situation regarding the curricular administration of both public and private Thai universities which currently offer film and digital media courses for data collection and analysis. By doing so, the research is expected to provide some insights into managing such curriculums as well as useful guidelines on making them appropriate and relevant to the Thai context of private universities.



IV. Research Methodology

Based on a qualitative approach, the researcher conducted in-depth interviews with sixteen key stakeholders. These interviews were carried out between January and May 2016. The research respondents consisted of three producers, two directors, two cinematographers, a screenwriter, an acting trainer, a sound designer, an editor, a director of acquisitions, a film critic, a fashion editor as well as photographer, a CEO of a visual effect company, and a deputy director of Thai Film Archive. The selection of the research respondents were done through judgmental sampling on the basis of their professional achievements recognized in Thailand and overseas. Findings from the interviews were then analyzed in the next step.

V. Research Results

Research results are divided into four parts in accordance with the research framework. Details are presented below.

Part 1: Analysis of the current situation of both public and private universities

In Thailand, public universities have an advantage over private ones in admission process through a centralized system of admission and a direct admission. On the contrary, private universities are open for all with an admission process not as strict as that of the public ones. Thus, main factors in choosing a private university include the renown of that university, a curriculum, modern teaching equipment with sophisticated technology, famous alumni and teaching staff, including the number and type of national rewards received by students of that university, namely those received at Thai Short Film and Video Festival, hosted by Thai Film Archive (a public organization) in collaboration with Thai Film Foundation, which is ongoing and well-recognized for 20 years in a row.

Table 1: The number of awards received at Thai Short Film and Video Festival		
Competition Category	Public Universities (14)	Private Universities (3)
The White Elephant Award (Short Film)	79	37
The Duke Award (Thai Documentary Award)	3	1
Vichit Matra Award (for the outstanding short in some way)	21	4
The Kodak Award	4	8
Popular Vote	2	2
Total	109	52
Note: the number of awards was counted from the number of university students submitting their works for competition from the first year to the 19 th , from 14 public universities and three private ones. Source: http://www.thaifilm.com/ , Thai Film Foundation (2016), and additional information from interviews		

As displayed in Table 1, at Thai Short Film and Video Festival from the first year until the 19th, awards in the White Elephant category, in which most of the contestants have submitted their pieces of work, were received by students from both public and private universities, that is, a total number of 79 pieces from 14 public universities and 37 pieces from three private ones. This means that both quality and work of students from private universities are not inferior to those from public universities. In all categories, students from these public universities received 109 awards while those from the private ones won 52. In other words, the private ones have a larger proportion in terms of participation and the number of awards received.

However, public universities, as earlier mentioned, have an advantage in admission process. Thus, private universities have to initiate strategies covering both academic and commercial dimensions in order to enable their students to attain quality and competitiveness which satisfy the needs of the labor market at the same extent as those from public universities.

The first priority is that private universities should set a clear goal and objectives to develop their curriculums: whether they want to go for commercial purposes or the production of graduates for film industry. If they aim to contribute to the film

industry, they can do so by adjusting their admission process, reducing the number of students for a lecture, as well as focusing on feedback and more activities in the classroom. As an example, the research respondents cited a film and digital media institute under a private university overseas which offers courses with high tuition fees, strict admission, and high quality education. This institute accepts approximately 100-200 new students each year, only those with an intention and clear goal. Incubation through different processes enables students to further develop their potential, which established the institute as one of the best recognized for producing graduates with high quality.

Part 2: Admission process and teaching methods

In this highly competitive era, socio-economic structures have swiftly changed locally and internationally, which pushes private universities to speed up development for quality and sustainability. Private universities might have to add some more admission process for an outstanding program, tailored for students with specific purposes e.g. project-based learning with a focus on project work for festivals. In so doing, they should support students with partial fund. This also includes other result-based projects for students at higher level and supports for students with a range of scholarship programs. For teaching method, some subjects can be taught online or through the use of blended learning which blends online with classroom teaching; most of the content is done online with some classroom meetings. As defined by such researchers as Graham (2012) and Horn and Staker (2011), blended learning for K-12 grade students means a learning process where learners have freedom in their learning experience through computer networks; thereby students being able to control learning factors by themselves in terms of time, place, learning method, and learning ratio. Additionally, this can reduce teaching costs for both students and universities. Students also have more time for weekly self-study.

Part 3: Comparison among film and digital media curriculums offered by universities in Thailand

In Thailand, there are approximately 40 public and private universities providing film and digital media courses. The selection criteria of the sampled universities were based on the students' works awarded in Thailand and overseas, academic richness of teaching staff, and wide recognition in the film and digital media industry.

Table 2: Comparison among public and private universities recognized in film and digital media in terms of the number of credits required in their curriculums

	Public University No.1 (2008)	Public University No.2 (2013)	Public University No.3 (International)	Public University No.4 (2012)	Public University No.5 (2012)	Private University No.6 (2012)
General Ed.	51	30	52	30	30	35
Core Subject	32	51	28	50	30	36
Major						
Major	28	30	84	36	26	48
Elective	12		16	24	24	15
Free Elective	6	6	8	6	6	6
Minor	18	15			15	
Total	147	132	188	146	131	140
Note: A comparison among the sampled universities in terms of film and digital media curriculums between academic years 2008 and 2016						
Source: Data from the websites of the sampled universities						

As seen in Table 2, difference in arranging subjects was found. University No.3 required the highest credits and made students take the highest number of major subjects compared to other universities. This is the same with university No.6 which required students to take the highest number of major subjects compared to other general or core subjects. On the other hand, university No.2 offered several core subjects with a number of credits, making students take fewer subjects in film major as opposed to other universities.

Another interesting issue is that universities No.1, No.2, and No.5 allowed students to take major electives in accordance with individual interests with some limitation on the number of credits. On the contrary, the rest of the universities indicated a list of subjects required by their curriculums and allowed students to choose nine free electives solely.

Comparison among core subjects in the film and digital media curriculums

Having considered each curriculum in terms of core subjects, we can see that the curriculums offered by universities No.1 and No.2 were designed for teaching students to gain general understanding of communication arts because students were required to study introductory subjects of each available course, e.g. Introduction to Mass Communication, Introduction to Advertising, and Introduction to Public Relations, so that students can choose their minor or extra subjects of interest in subsequent semesters.

Interestingly, the curriculum offered by university No.5 placed English as one of the core subjects, which allows students to learn and practice English for their future career. Moreover, it also focused on subjects related to theories and other business-oriented subjects. This is very much the same as university No.4 which emphasized on marketing and economics. While there was no English as a core subject here, English for Career was offered as an elective subject, which reflects the importance of English for media people. As for the curriculum of university No.3, there was no focus on English because it was an international curriculum. Instead, this university placed more emphasis on major subjects. Finally, university No.6 placed importance on law and ethics in media on the curriculum.

Comparison among majors of the film and digital media curriculums

Film studies at university No.1 was oriented toward the foundation of filmmaking in accordance with their progression to the next year, starting from subjects like screenwriting, film and video techniques, production preparation, directing, editing, visual arts, including theory and practice in film criticism. This was a theory-based learning to prepare students for general knowledge and understanding of the filmmaking process from screenwriting through editing and criticism. As for university No.2, this university also provided general knowledge, but not in every aspect, starting from directing, screenwriting, photographing and theories, with an emphasis on subjects like storytelling and concept thinking. In the meantime, teaching method of universities No.3 and No.4 was both general and detailed, starting from screenwriting, and so on. It is noteworthy that university No.6 put more emphasis on screenwriting than others, including planning of shooting, directing, photographing, acting and editing. University No.3, apart from script analysis and shooting, it also placed importance on editing in post production process and sound production in order to enable a single student to learn the whole process from the pre to post production. Another outstanding point of university No.3 is that it provided subjects oriented toward film production. In comparison, university No.4 offered two film production subjects, three by university No.5, and four by University No.6. Yet, university No.3 offered six subjects, plus two core subjects as an independent study making eight subjects in total. This means that the curriculum of this university placed prime importance on providing students with film production experience while universities No.1 and No.2 offered one film production subject each.

In terms of major electives, university No.1 was identified as offering a variety of electives: documentaries, advertising, short film production, script analysis, film research, and film aesthetics. This curriculum allowed students to choose theory subjects according to their interests and continue from the core subjects previously studied. In the meantime, university No.3 had a number of general and core subjects so there were not so many electives offered by the faculty itself, but it allowed students to choose electives from other faculties. As for electives in film studies of university No.3, there were subjects on film history and production of other types of film in order to prepare students to explore other things than film and thus provide them with more career choices. Further, university No.4 offered electives as a continuation from core subjects, e.g. moving image 2-3, screenwriting, advanced editing, theory and practice in arts. On the contrary, university No.5 provided no extra electives on film studies but students may choose electives from outside of their department or major. Lastly, at university No.6, electives were mostly screenwriting subjects.

In general, most of the subjects contained in the curriculums were wide and diverse, which enable students to understand the whole picture before finding their own interests in later years. Yet, there were a few other universities training students for specialized knowledge. For example, screenwriting of university No.6 featured both writing for film and TV drama, which makes their curriculum quite unique compared to those offered by other universities and also addresses the flaw of Thai film industry where scripts lack originality and also a shortage of screenwriters. Similarly, the curriculum offered by university No.5 divided their courses into film production, acting and directing actors, including design for film and digital media. As for acting

and directing actors, university No.5 managed their courses jointly with the acting department of the same university in order to produce quality actors and directors, especially for film industry. However, there has been no course that appears to adequately meet the needs for the production of graduates with specialized skills.
(Source: Data from the TQF2 Curriculums of the sampled universities)

Part 4: Curriculum design with focus on specialized skills

1. Skills and cluster subjects for screenwriters and directors

Interviewed experts pointed out that both screenwriters and directors relatively share similar skills: storytelling and communicating. Directors might also have to understand a film production unit though. These two careers may take the same subjects until the first semester of junior year. When they start the second semester of third year, directors should focus on the filmmaking process while screenwriters should practice more writing. The experts have seen that many directors in Thailand often do both the screenwriting and the directing as directors are those who best understand the whole story.

	Courses	Scope
Screenwriter Director	Script Analysis Screenwriting: various levels Directing Actors Research and Development	<ul style="list-style-type: none"> • Arts of storytelling • Structure of narrative arts • Treatment development • Plot • Act 1, Act 2, Act 3 • Directing Skills • Communication skills

In terms of script analysis and storytelling, if students can start analysis from the foundation of screenwriting, they can write a good script, with understanding of each plot structure, namely the Blake Snyder Beat Sheet so as to analyze a script within two hours; how they understand plot structure, timing, mood and tone of film, including where the film problem is (Snyder, 2005). When they learn and understand plot structure from masterpieces, they can develop their own script better.

2. Skills and cluster subjects for directors

Students who want to be directors should take the following subjects.

	Courses	Scope
Director	Space, Time, Sound and Moving Image Directing Actors Film Authorship Character Studies & Design	<ul style="list-style-type: none"> • Fine-tuning sensory • How to communicate and direct • Framing and "Mise-en-scène" • Learning from masterpiece and concept & theories, communication • Character studies and development

3. Skills and cluster subjects for screenwriters

As for students who want to be screenwriter, they should take the following subjects.

	Courses	Scope
Screenwriter	Research for Screenwriter Advanced featured-length screenplay Structure of Narrative Arts	<ul style="list-style-type: none"> • Inspiration, imagination, reason • Industry partnership • Analysis and Comparative studies

4. Skills and cluster subjects for directors of photography

Interviewed experts gave an opinion that this position requires those with accumulated experience in art appreciation and film viewing, with building a portfolio and turning it into a show reel. The essence of directors of photography is a point of view and storytelling in images, rather than image quality. Students are recommended to study the following subject to continue from core subjects.

	Courses	Scope
Cinematographer	History of cinematography Directing for the Screen/ Acting Lighting Art Appreciation	<ul style="list-style-type: none"> • Negative film to digital • From science and chemistry to digital technology • Actor's emotion and camera movement • Studio, interior and exterior lighting • High-key, Low-key • Hot and Cold Lighting • Art, composition, aesthetic experience

5. Skills and cluster subjects for editors

Interviewed experts said that practical subjects for students aiming to editing jobs for both picture and sound are the art of storytelling, starting from editing theories, learning and practicing a range of editing programs so that they can make use of these editing tools in storytelling creatively and efficiently.

	Courses	Scope
Editor	Editing Technology Editing Aesthetics of Editing Color Grading Advanced Editing Editing Teaser	<ul style="list-style-type: none"> • Software, technology, workflow • File management • Process, techniques • Film language, editing masterpiece • Re-writing tool • Symbolic, storytelling & comparative • Color theory, color psychology • Mood and tone • Same Footage, different storytelling • Audience impact

6. Skills and cluster subjects for sound designers

The key experts suggested that sound is a science different from filmmaking. Students have to understand the science and skills of sound and know how to distinguish a range of sound, including functions of sound in creating emotions and feelings. They also have to study the cinematic art and film history so as to understand the sound development in film.

	Courses	Scope
Sound Designer	Basic Audio History of cinematic sound Sound recording Sound design	<ul style="list-style-type: none"> • Concept design • Fundamental of sound • Functions of sound • Sound development and technology • Theory and practice • Recording techniques • Quality control • Concept design, creativity • Sound invention (ghost sound, jinn sound) • Taste, Sense of hearing & choosing

7. Skills and cluster subjects for producers and film entrepreneurs

Key experts said that producers and film entrepreneurs are careers which need to understand the whole process of filmmaking, starting from directing, screen writing, film criticism, marketing, location, equipment rental, funding, and distributing. If students have only limited knowledge, they may end up as production manager level. Yet, film producers are far more important. As an example, experts cited Hollywood industry in which many movies happened because producers wanted to make them; producers then secured a screenwriter, a director, a cinematographer, and an art director. Producers have to understand how to make movies, creativity, and final work. They also need to put the right people to the right job: know what kind of movies directors are good at, what kind of scripts screenwriters are keen on, including do the optimal budget management as well as sell movies or find sponsors.

In addition, experts added that to be a producer for animation and visual effects, third language ability is an asset that can open up career opportunities, especially the access to the global market.

	Courses	Scope
Producer Film Entrepreneur	Script Analysis Directing and Acting Production Techniques Budgeting and Scheduling Film Business Analysis Marketing and Distribution Foreign Film Production Service Third Language Critical Thinking	<ul style="list-style-type: none"> • Ability to Analyze both quality and salability • Understanding director • Creativity development • Understanding equipment • Production solution • Production planning, budget control, balance sheet, budget allocation, time management • Making money or not • Ability to differentiate • Target • Advantages and Disadvantages • Selling Point • Marketing Strategy, distribution, festival and cinema, funding • Positioning as outsource • One-stop service (Laws and Permissions)

8. Skills and cluster subjects for film curators

Key experts gave an opinion that students should have well-rounded knowledge of film and adequate experience in film viewing and art appreciation. As for programming of film festivals, students of film studies and film business are perfect choices for planning and management of such festivals.

	Courses	Scope
Film Curator	Film Aesthetics Programming Festival Promoting Screening and Exhibition	<ul style="list-style-type: none"> • Film as art, critical skills • Presentation, films grouping • Marketing & Public relations • Uniqueness, originality, separation • Technical knowledge, projection system, sound and light, cinema experience

9. Skills and cluster subjects for visual effects artists

Experts indicated that students in this area must have storytelling skills and be able to create a story from computer programs, starting from drawing, character design, lighting, and other techniques. Visual effects are matters of art, imagination, and creativity blended with sophisticated technology. With film knowledge, students can further apply to other relevant fields. Apart from art appreciation as well as a wide and deep understanding of technology, they should study key subjects as follows.

	Courses	Scope
Visual Effect Artist	Film Language Light and Shadow Modeling Digital Sculpture Compositing Dynamic Simulations Advanced Techniques	<ul style="list-style-type: none"> • Camera movement, size of shot • Imagination • Reality reinforcement, lighting and rendering • Concept, character design, mapping • 3D Modeling, retopology • Conceptual studies • Technology implementation • Snow, storm, fire, smoke effects for film • Complicated softwares • VFX Mastering

10. Skills and cluster subjects for photographers

Experts revealed the key for photographer is to acquire their own style and taste. They must know what they can are good at and keen of, they should learn a range of photos and ideas from prominent photographers. Photographers can make for a variety of career paths and futures. Apart from art theories, they should study and practice the following.

	Courses	Scope
Photographer	Theory & History Photography Business Lighting Techniques Image Editing and Application Fashion, Landscape, People, Studio, Journalism & Documentary, Commercial Digital Printing	<ul style="list-style-type: none"> • Planning and Marketing • Early to Digital Age • Professional Techniques • Look Book, Online marketing • Model and product presentation, campaign, character branding, magazine design, visual arts, idea, implication, juxtaposition • Learning from masterpiece • Communication design • Post-production techniques • Dimension, texturing, color, tone, grading • Emotional communication

11. Skills and cluster subjects for acting trainers and actors

Experts gave a view that acting for film is different from plays and TV drama. Students can learn acting for different kinds of media or some more of directing skills, this will increase more career opportunities. For those studying to be an acting coach, they have to acquire such skills as understanding scripts, psychology, communication, interaction and persuasion.

VI. Conclusion and Recommendations

In order to enhance education quality of film and digital media curriculums offered by private universities in Thailand, the private institutions will have to adjust a strategic direction in developing such curriculums: whether the curriculum is for commercial purposes or to contribute to the development of film graduates and film industry. The curriculum development should start from admission policy, screening students based

on their goals, incubation of students with innovative teaching methods, curriculum design which keeps pace with the ever-changing technology and responds to the needs of the film industry, including students' language skills. If the recommended guidelines are consistently applied to the Thai context of private universities, it is likely that these private institutions with good human resource and facilities will be able to produce film graduates capable of satisfying the demands of the industry and competing both in Thailand and overseas.



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A Study on the Effectiveness of the Education Development Fund as a Post-Colonial Strategy to Control Non-Tertiary Education in Macao SAR

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Abstract

As a former colony of Portugal, Macao has experienced slack control on education, which resulted in the diversity in it today. After its return to Chinese sovereignty in 1999, educational legislations and subsidies have been gradually introduced to schools in an attempt to subject the system to a more public and centralized form of control. This study examines the effectiveness of the Education Development Fund, one of the major subsidies offering to schools in Macao SAR, in term of exercising the influences of the educational administrator. In order to identify the expectations of educational administrator, content analysis of the regulations listed in the aforementioned subsidy, from the academic year 2012/2013 to 2015/2016, was conducted. The numbers of applications for such expectations in those 4 academic years are also computed to investigate the correlations of them. The findings show that the educational administrator indicates its expectations through the terminology “Key Funding Items” but the number of applications shows no alignment in the interests of the schools. Therefore, it can be concluded that the Education Development Fund does not influence much on the decisions of the schools and therefore can hardly be constituted as an effective policy mechanism. Other means to enhance the effectiveness of the educational policies should be further discussed and introduced for the unique context of Macao SAR.

Keywords: control education, subsidies, post-colonial, school development

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Introduction

As a former colony of Portugal, the education in Macao has experienced influences, development and transformation through the administration of two governments: Portuguese Administrator of Macao before the return of Chinese sovereignty in 1999 and the Macao Administration under the guidance of the “Basic Law of Macao Special Region” in the “One country, two policies” policy.

During the colonial period, the Portuguese administration applied slack control on education because the priority and public resources were only provided to few public schools while the majority self-sustained private schools operated and developed without much monitor from the government, which results in the diversity in education in Macao today (Shan & Ieong, 2008; Young, 2009). Only after the Joint Declaration were signed was the prospect of Macao questioned and the first educational legislation, Law No. 11/91/M was promulgated in 1991 and was in force before the promulgation of the Fundamental Law of Non-tertiary – Law No. 9/ 2006 and other decrees. Those legislations defined many areas in non-tertiary education and the system was gradually subject to a better control (DSEJ, 2006; MSAR, 1991). However, schools in Macao today still enjoy much autonomy in term of deciding their own development, which is the results of the diversity and is regarded as an important feature in education here. Therefore, in addition to legislation, subsidies are also provided to schools under different categories (DSEJ, 2016d).

The Education Development Fund was established in 2007 and has been provided to schools to augment the development of educational plans and activities in a more effective way and to stabilize the investment of educational resources. Schools can apply for it through the application of School Development Plan for each academic year (DSEJ, 2016a). Despite the large investment in the Education Development Fund, the implementation of it is rarely researched. This present study investigated its effectiveness in influencing the decisions of the schools in Macao SAR. It is to examine part of the implementation of public resources and seeks to answer the following research questions:

1. How did the educational administrator of Macao SAR illustrate its concerns and expectations through the Education Development Fund?
2. How did the Education Development Fund influence school decisions?

Literature Review

The History of Education in Macao

Historically, the Portuguese firstly came to Macao for shelter and later utilized it as a trading centre to China and other Far East countries. Only after the 1557 did the Portuguese and the Ming Dynasty of China officially agree with the Portuguese “lending or letting Macao” (Shan & Ieong, 2008). At that moment, the primary interests of the Portuguese administration of Macao focused on three main groups of communities: Portuguese residing in Macao, Portuguese born in Macao and the Eurasian “Macanese” (Shan & Ieong, 2008). Those three groups of people were given top priority and the educational policy and institutions, mainly non-tertiary education

by the Portuguese administration, were set up to serve those three groups of people, and the other schools serving the Chinese and founded by unofficial organizations were ignored and received little support from the government.

Those schools included church schools (Catholic or Christian), Yixue (charity schools), other primary and secondary schools and vocational schools. They were set up and operated autonomously and were seldom intervened by the government officials. As those schools had long been depending on themselves both administratively and financially without supervision from the government, they developed their own curriculum and instruction, which finally resulted in the diversity in education (Shan & Jeong, 2008; Young, 2007). For a long time, the coexistence of public and private school systems could be found in Macao. It was not until the Sino-Portugal Joint Declaration was signed in 1984 when the prospect of Macao gained attention and the education system was first required control.

Educational legislations in Macao

In order to answer the need for a more standardized education system in non-tertiary education, the Law No. 11/91/M was promulgated in 1991. It provided instruction and guidance to educational institutions in Macao (MSAR, 1991). Nevertheless, the difference in curriculum, standard of education, the qualification of teaching staff as well as the conditions of school environment remained huge.

After the hand-over to China in 1999, the administration of Macao SAR has been trying to further minimize the differences among schools through the legislation of Law No. 9/2006 – Fundamental Law of Non-tertiary. Under the Law No. 9/2006, many areas of education were defined: general regulations, the principles and objectives of the education system, composition of non-tertiary education, compulsory education and free education, curriculum, educational support, education institutions and school system, human resources, material resources, education funds, implementation and evaluation of the education system as well as final and transitional stipulations (DSEJ, 2006).

Under the legislation of this law, the non-tertiary education in Macao is classified into two types: formal education and continuing education. Formal education includes kindergartens, primary schooling, secondary school, and special education while family education, recurrent education, community education, vocation training and other educated activities are included in continuing education. However, the vocational technical education can be implemented in both types and can be offered in senior secondary level only (DSEJ, 2016c).

The Macao school systems are consisted of two main types of school: public and private. The later can be further divided into schools following the local education system and schools which do not follow the local education system. Those which follow the local education system are defined as non-profit-making private schools, in which two more categories can be found: schools under the free education and schools under the paid educations (DSEJ, 2016c). Chart 1 below illustrates the non-tertiary education system in Macao.

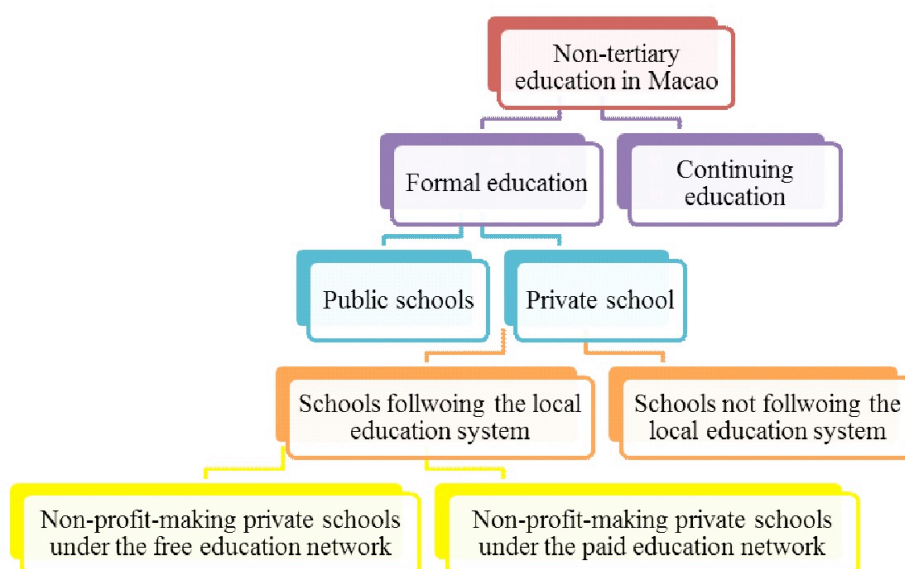


Figure 1 The non-tertiary education system in Macao

Education Subsidies

Two subsidies are provided to schools following the local education system. The primary one is free education subsidy which can only be offered to public schools and non-profit-making private schools under the free education network. The students in those schools do not pay tuition, complementary expenses and other related fees of studying and certificate. Another one is the student-teacher ratio subsidy which is offered to all schools following the local education system. Schools will be subsidized in accordance with the ratio of students and teachers generated by certain equation (DSEJ, 2016d). In term of encouraging development among schools, the Education Development Fund was established in accordance with Article No. 48 of Law No. 9/2006 through Administrative Regulation No. 16/2007 in 2007 (DSEJ, 2016a).

The Education Development Fund is open for application for all non-profit-making private schools in the scope of non-tertiary education through the subsidy scheme of School Development Plan (DSEJ, 2016e). The objectives of it are to optimize the development of educational plans and activities and to stabilize the investment of educational resources. There are 7 core areas (DSEJ, 2016a):

1. To enhance students' ability in humanistic literacy, scientific research area, critical thinking as well as international perspectives;
2. To improve the conditions and environment of schools by upgrading the IT facilities for various teaching methods and creating a safe and healthy place;
3. To ameliorate school-based curriculum and implement teaching pilot schemes to promote successful learning;
4. To promote continuing learning among teaching staff through school-based training and individual study plan;
5. To assure the balance development of students through strengthening their concepts of nations and organizing various learning and leisure activities;

6. To support personalized education for students with special needs by creating appropriate learning environment;
7. To nurture the development of continuing education through promoting various training like sports and art.

The former subsidies, namely the free education subsidy and the student-teacher ratio subsidy, are provided based on the numbers of students and certain equation. Both subsidies are provided in order to secure the legislation of laws and other decrees promulgated by the administration of Macao SAR in terms of school operations, which are more regular and easier to control. However, when referring to the development and the fulfillment of special needs in the education in Macao, it is more difficult to control and examine. The implementation of it is also unresearched. Therefore, the study investigated the of Education Development Fund and examined its effectiveness in influencing schools in Macao.

Methodology

The methodology consisted of two stages. In the first stage, content analysis was applied to compare the regulations of the School Development Plan from the academic years of 2012/2013 to 2015/2016 in order to investigate the educational concerns and expectations of the educational administrator in Macao. The selection of regulations in those 4 academic years was based on the following two criteria: availability and researchability.

The official website of the Education Development Fund is the only source to obtain the regulations and the funding results, the record of which only starts from the academic year of 2011/2012. Moreover, since its establishment in 2007, the regulations of the Fund were relatively simple and indicators to illustrate the concerns of the educational administrator were hardly found. However, certain terminologies can be found reiterating in the regulations since the academic year of 2012/2013.

In the second stage, the numbers of school applications for such expectations in those 4 academic years were also computed to examine the correlations of them. The numbers of school applying the Fund are illustrated in the figure below.

	2012/2013	2013/2014	2014/2015	2015/2016
# of schools in Macao	78	77	77	77
# of schools applying the Fund	65	66	66	65
% of schools applying the Fund	83.3%	85.7%	85.7%	84.4%

Table 1 The number of schools applying the Education Development Fund

Findings

The terminology “key funding” was first found in the regulation of 2012/2013 and was changed into “key funding items” in 2013/2014 (DSEJ, 2016e). Later, it was replaced by “Major Funding items” in 2014/2015 and was still in use in the regulation of 2015/2016 (DSEJ, 2016e). Under this category, three main areas were included:

Enhancing students' language proficiency, Developing students' moral and civic competence and Facilitating students' enjoyable and effective learning. The other category is called Other Subsidies in which two areas are put: Professional development of the teaching staff and School building renovation and equipment renewal.

Each area under the two main categories contains several items and the total numbers of funding items had been increasing in those 4 years. It is also discovered that while the items under the category of Other Subsidies remained the same, the items in Key Funding (or Major Funding Items) were increased or altered in those 4 respective year, which indicated that they were given more consideration and were changed based on the special needs in the development of education in that respective academic year.

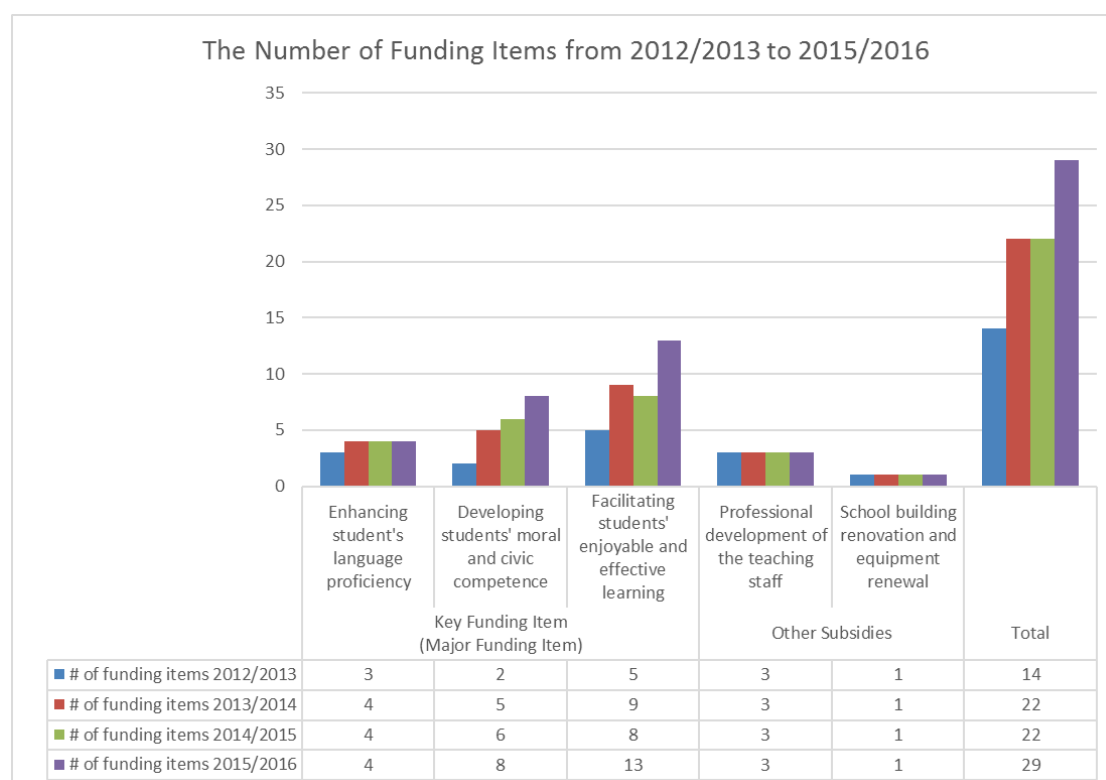


Figure 2 Summary of the number of Funding items from 2012/2013 to 2015/2016

Comparison of those Key Funding Items (or Major Funding Items) also found twelve items appeared in the regulations of School Development Plan for four straight years and another two were listed for three straight years since their appearance in the academic year of 2013/2014.

Key Funding Items (Major Funding Items)		2012/2013	2013/2014	2014/2015	2015/2016
Enhancing students' language proficiency	School-based language learning and reading activities	✓	✓	✓	✓
	Establishment of school-based Portuguese Curriculum	✓	✓	✓	✓
	Optimization of the reading conditions in School (Enhancing the school reading environment)	✓	✓	✓	✓
	Language certification subsidies for students and teaching staff		✓	✓	✓
Developing students' moral and civic competence	Promotion of school-based moral education development	✓	✓	✓	✓
	"Be acquainted with our Mother Country, Love for China" Learning Excursion	✓	✓	✓	✓
	Promoting healthy development of Student Association	✓	✓	✓	✓
Facilitating students' enjoyable and effective learning	Vocational-technical Education	✓	✓	✓	✓
	Curriculum Development Pilot Project	✓	✓	✓	✓
	Setting up multiple fitness centres	✓	✓	✓	✓
	Opening campus facilities	✓	✓	✓	✓
	"Putting the Learning into Practice - School-based Application Curriculum" Pilot Project	✓	✓	✓	✓
	Information Technology Education	✓	✓	✓	✓
	Inclusive Education/ Special Education		✓	✓	✓

Table 2 Summary of the Key Funding Items (Major Funding Items) from the academic year 2012/2013 to 2015/2016

By looking at the table above, 4 items included in those four school years under the area of Enhancing Students' language proficiency were repeated 3 straight or above while 3 and 7 items were repeated in the areas of Developing students' moral and civic competence and Facilitating students' enjoyable and effective learning respectively.

The number of schools applying for the School Development Plan is 65 and 66, 66 as well as 65 which accounted for 83.3%, 85.7%, 85.7% and 84.4% of the total number of schools in Macao in the academic years of 2013/2014, 2014/2015 and 2015/2016 respectively as illustrated in Table 1 previously.

When further studying the results of the application of the School Development Plan from the school year 2012/2013 to 2015/2016, the numbers of schools applying the repeated Key Funding Items (or Major Funding Items) listed in Table 2 are as below.

Academic Year Key Funding Items (Major Funding Items)		2012/2013		2013/2014		2014/2015		2015/2016	
		# of schools	% of school	# of schools	% of school	# of schools	% of school	# of schools	% of school
Enhancing students' language proficiency	School-based language learning and reading activities	47	72.3%	44	67.7%	46	69.7%	41	63.1%
	Establishment of school-based Portuguese Curriculum	5	7.7%	6	9.2%	5	7.6%	5	7.7%
	Optimization of the reading conditions in School (Enhancing the school reading environment)	15	23.1%	11	16.9%	10	15.2%	4	6.2%
	Language certification subsidies for students and teaching staff	--	--	23	35.4%	27	40.9%	31	47.7%
Developing students' moral and civic competence	Promotion of school-based moral education development	49	75.4%	52	80.0%	53	80.3%	51	78.5%
	"Be acquainted with our Mother Country, Love for China" Learning Excursion	55	84.6%	51	78.5%	50	75.8%	54	83.1%
	Promoting healthy development of Student Association	29	44.6%	35	53.8%	36	54.5%	39	60.0%
Facilitating students' enjoyable and effective learning	Vocational-technical Education	8	12.3%	8	12.3%	8	12.1%	16	24.6%
	Curriculum Development Pilot Project	16	24.6%	24	36.9%	22	33.3%	23	35.4%
	Setting up multiple fitness centres	17	26.2%	10	15.4%	6	9.1%	7	10.8%
	Opening campus facilities	6	9.2%	11	16.9%	9	13.6%	8	12.3%
	"Putting the Learning into Practice - School-based Application Curriculum" Pilot Project	58	89.2%	55	84.6%	52	78.8%	52	80.0%
	Information Technology Education	23	35.4%	32	49.2%	30	45.5%	30	46.2%
	Inclusive Education/ Special Education	--	--	14	21.5%	14	21.2%	12	18.5%

Table 3 Summary of the number of schools applying for the repeated Key Funding Items (Major Funding Items)

The most frequently applied item is “Putting the Learning into Practice – School-based Application Curriculum” Pilot Project with the mean of 83.2% of applications out of the total numbers of schools applying for the Education Development Fund in those four academic years. “Be acquainted with our Mother Country, Love for China” Learning Excursion is the second frequently applied item with an average of 80.5% followed by Promotion of school-based moral education development with 78% in average. The least frequently applied item is Establishment of school-based Portuguese Curriculum with the average of 8%, which is the only item applied by the schools least than 10% in average. Opening campus facilities and Optimization of the reading conditions in School (Enhancing the school reading environment) are also low in the application, with 13% and 15.35% of the total applications in average. It is also noted that only 5 out of 14 items were applied over 50% of the total applications while the application of 6 items was below 20% or slightly higher than 20%.

Key Funding Items (Major Funding Items)		2012/2013	2013/2014	2014/2015	2015/2016	Mean
		% of school	% of school	% of school	% of school	
Enhancing students' language proficiency	School-based language learning and reading activities	72.3%	67.7%	69.7%	63.1%	68.2%
	Establishment of school-based Portuguese Curriculum	7.7%	9.2%	7.6%	7.7%	8.0%
	Optimization of the reading conditions in School (Enhancing the school reading environment)	23.1%	16.9%	15.2%	6.2%	15.33%
	Language certification subsidies for students and teaching staff	--	35.4%	40.9%	47.7%	41.3%
Developing students' moral and civic competence	Promotion of school-based moral education development	75.4%	80.0%	80.3%	78.5%	78.5%
	"Be acquainted with our Mother Country, Love for China" Learning Excursion	84.6%	78.5%	75.8%	83.1%	80.5%
	Promoting healthy development of Student Association	44.6%	53.8%	54.5%	60.0%	53.3%
Facilitating students' enjoyable and effective learning	Vocational-technical Education	12.3%	12.3%	12.1%	24.6%	15.34%
	Curriculum Development Pilot Project	24.6%	36.9%	33.3%	35.4%	32.6%
	Setting up multiple fitness centres	26.2%	15.4%	9.1%	10.8%	15.35%
	Opening campus facilities	9.2%	16.9%	13.6%	12.3%	13.0%
	"Putting the Learning into Practice - School-based Application Curriculum" Pilot Project	89.2%	84.6%	78.8%	80.0%	83.2%
	Information Technology Education	35.4%	49.2%	45.5%	46.2%	44.1%
	Inclusive Education/ Special Education	--	21.5%	21.2%	18.5%	20.4%

Table 4 Summery of the applications for the repeated Key Funding Items (Major Funding Items) from the academic year of 2012/2013 to 2015/2016

Discussion and Suggestion

The Education Development Fund is an essential subsidy for the schools in Macao SAR as a very high percentage of schools applied for it in the academic years from 2012/2013 to 2015/2016. However, the function of such subsidy confined in informing the concerns and expectations of the educational administrator and was unable to influence the schools to answer such concerns and expectations.

In spite of the stress of the educational administrator on those fourteen Key Funding Items (or Major Funding Items) by restating them three to four successive years, the numbers of schools applying for them fluctuated and did not reflect much correlation with the expectations of the educational administrator in Macao. More interestingly, an item, namely “Promoting students’ successful Learning”, was found in the application of the schools even though it was not an item listed in the regulations (DSEJ, 2016b). The numbers of the application for such item was as high as 38, 42, 40 and 41 in the numbers of school and 58.5%, 63.6%, 60.6% and 63.1% in those four academic years respectively. The reason for such high percentage of application could be the wide-spread concerns of the high retention rate revealed in a report by OECD in 2009 (OECD, 2010; Wong, 2013) and the future legislation on the retention rate in non-tertiary education.

Nevertheless, such correlation may still be low as the ongoing legislation of Special Education System did not accelerate the applications on the subsidy for Inclusion Education. A research revealed that perspectives of other stakeholders: teachers, parents, students and communities, also affected the decision of a school to adapt inclusive education (Wu, Hui, & Cheung, 2015). It can be concluded that schools made decisions on development based on their own needs and concerns of the stakeholders, rather than on the amount of subsidy they can obtain. Therefore, the Education Development Fund is not an effective policy mechanism in term of influencing the decisions of the schools in Macao. Other studies on the factors that influence the decisions of the schools as well as the implementation of the subsidies are desired to reflect the utilization of the public resource in a more holistic way.

Conclusion

The education in Macao are still experiencing the influences of the slack control by its former colonial Portuguese administrator and enjoying the diversity today while legislations and subsidies has been gradually introduced by its post-colonial Macao SAR educational administrator in an attempt to subject the system to a more centralized form of control. However, the effectiveness of those subsidies are hardly researched. This study investigated the Education Development Fund, one of the major subsidies here, to examine its effectiveness. Content analysis of the regulations of such subsidy from the academic year of 2012/2013 to 2015/2016 discovered that the items under the terminology “Key Funding Items” or “Major Funding Items” were revised, altered and increased from years to years while items under the category of “Other Subsidies” remained unchanged in four years straight, which illustrates consideration and expectation was emphasized on those items. However, the numbers of application for such items did not show much correlation with the decision of the schools and cannot be regarded as an effective educational mechanism. In order to better utilize the public resource, studies on the factors influencing the school decision and the implementation of the subsidies are desired to help enhance the effectiveness of educational policies for the unique context of Macao SAR.

Simultaneously, guidelines and instructions on the supervision and a measurement of the effectiveness of the implementation of the subsidies should be created in order to ensure the appropriate use of public money.

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An Italian Case: Students with a Foreign Background in IVET and the Access to Italian as Second Language

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Abstract

The article is based on a study carried out in 2014-2015 by the administration of nearly 3600 questionnaires on a sample equally distributed among Italian students and pupils with foreign origins in Initial Vocational Education and Training-IVET in six Italian regions. The text examines the survey data related to the ownership and use of the Italian language and of different dialects for the students of foreign origins. Starting from the research evidence, some proposals for the strengthening of the Italian language for young people with foreign origins are suggested. A bibliography reference, per author, and in relation to the issues of intercultural education, Italian second language, active citizenship, integration and inclusion, is annexed.

Keywords: Young people of foreign origin; Italian as second language

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Introduction and context

This paper is based on the results of a quantitative survey (2014-2015) with 1840 foreign students and 1835 Italian students attending classes in the framework of the Initial Vocational Education and Training (hereinafter IVET), in six Italian Regions, from the North to the South. The use of foreign languages, Italian and dialects is a central issues in the survey, in relation to the development of a multi-cultural and cross-cultural identity, and as a bridge to link the themes of localism to those of global migration. (L. Daniele, 2015).

As for the contextual data, we have that the IVET in 2013-14 educational year has had a positive trend, with more than 316,000 students enrolled in the triennial courses, that amounts to the 11.3% of the total of the secondary cycle population.

The inclusive nature of the IVET - Initial Vocational Education and Training is evident, incomparable with the parallel segments of our education system: in the year 2013-2014 students with foreign origins enrolled in IVET were 46,375 units, accounting for 16.9% of the total enrolments in IVET (except Islands, where data are not available), of which 23,836 in educational institutions (training centers or agencies).

If we put these data in comparison with those related to other educational pathways, we have that students with foreign origins in upper secondary school (general education) are only 6.6%, while in the technical and professional schools are 15.2% of total enrolments (see Tab. 1).

Table 1- Students with foreign background in IVET pathways (I, II, III year), training year 2013-14 (v.a.; %)

	Students with foreign origins in training agencies I-III year (a.v.)	Total enrolments in the training agencies I-III year (v.a.)	Percentage of students with foreign origins enrolled in the training agencies I-III (%)	Students with foreign origins in the schools I-III year (a.v.)	Total enrolments in the school (general; technical; professional pathways) I-III year (a.v.)	Percentage of students with foreign origins enrolled in the school (general; technical; professional pathways) I-III year (%)	Total pupils with foreign origins enrolled in the training agencies+ school (general; technical; professional pathways) I-III year (a.v.)	Total students with foreign origins+ Italians in the training agencies and school (general; technical; professional pathways) I-III year (a.v.)	Percentage of students with foreign origins enrolled in the training agencies and in the school (general; technical; professional pathways) I-III year (%)
Tot.	22,836	119,445	19.1	23,539	155,321	15.2	46,375	274,766	16.9

Source: data elaborated by Isfol, 2015

Turning our attention to the presence of non-Italian pupils in the school system, the availability of data collected annually from the 2001/02 school year allows to make some observations on the flows recorded in the last decade. The National Report 2013/2014 (Ministry of Education - MIUR ISMU, 2014) confirms a large increase of foreign students in the school population in the period 2001/02- 2013/14 from 196,414 in the 2001/02 school year (2.2% of the total school population) to 802,844 pupils with foreign origins in the 2013/2014 school year (9% of the total), although with a progressive deceleration from 2008/09 to date, in relation to the effects of the economic crisis in Italy.

Generally, it is interesting to note that foreign students enrolled between 2009/10 and 2013/14 grew by 19.2% compared with a decrease of -2.0% of Italian students and a decrease of -0.4% of the total school population (see Tab. 2).

Table 2 – School population by citizenship, school-year 2009/10, 2011/12 and 2013/14 (a.v., %)

School year	Non Italian citizenship	Non Italian citizenship %	Italians	Total
2009/10	673,592	7.5	8,283,493	8,957,085
2011/12	755,939	8.4	8,204,227	8,960,166
2013/14	802,785	9.0	8,117,329	8,920,114

Source: data elaborated by Isfol, 2015

Pupils with Romanian citizenship (154,621), Albanian (107 847) and Moroccan (101,176) are amongst the largest groups attending the Italian school in the school year 2013/14, then the group of Chinese origin students (39,211) follows, together with the Filipino group (24,839).

Female pupils with a foreign background are 385,365, or 48% of all foreign students, similar percentage is observed among native students (48.3%).

The methodology

The research was carried out by ISFOL in 2014-2015 (*Gli allievi di origine straniera nell'IeFP – Students with foreign background in Initial VET*, ISFOL 2014) on students with foreign background in IVET: 124 vocational training institutions in Lombardy, Veneto, Emilia Romagna, Tuscany, Latium and Sicily were reached. 3675 questionnaires have been used for the analysis, of which 1840 were filled in by students with a foreign background. Of this latter sub-sample, 149 pupils had a foreign parent and one parent born in Italy (8.1%); 488 were students born in Italy, from foreign parents – G2 (26.5%); 212 were pupils arrived in Italy when they were less than 6 years – G1.75 (11.5%); 541 were students arrived in Italy when they were between 6 and 12 years - G1.5 (29.4%); 434 were students arrived in Italy when they were between 13 and 17 years G1.25. Only 16 (0.9%) questionnaires were compiled by pupils arrived in Italy at the age of 18 or more – G1, (for the definition of G2; 1.5; G1.75; G2, see Rumbaut, 1997) this quota, being statistically not significant, it has not been considered in the detailed analysis. (see Tab. 3).

Table 3 – Students with a foreign background interviewed, according to the migratory generation

	Sample size	%
Students with a foreign parent and one parent born in Italy	149	8.1
Italian foreign students born in Italy G2.0	488	26.5
Students arrived in Italy when they were less than 6 years G1.75	212	11.5
Students arrived in Italy when they were between 6 and 12 years G1.5	541	29.4
Students arrived in Italy when they were between 13 and 17 years G1.25	434	23.6
Students arrived in Italy at the age of 18 or more – G1*	16	0.9
Total	1840	100.0

*This quota, being statistically not significant, it has not been considered in the detailed analysis

Source: data elaborated by Isfol, 2015

The core topics were: family situation and the migratory pathway; studies and training; satisfaction with the choice of VET and integration within the training centers; prospects and expectations regarding employment; linguistic and social integration outside the training context. The questionnaires were administered by ISFOL during the months of April-June 2013. The survey was financed by the Italian Ministry of Labour.

The issue of the language

The issue of the presence of foreign-born students, linked to the theme of the quality of the general education, has been present in the Italian scientific literature since the early Nineties. Less attention has been paid to the presence of foreign students in vocational training and education, not only in relation to the performance of pupils with foreign background, but also with regard to the integration, identity and belonging to the peer group in the training centers.

The term integration, therefore, refers also to the possibility of participation in a community, thereby “recognizing a full existence active and conscious - not without conflict – of the subjects to integrate” (E. Besozzi, 2012, pg 9). Thus, the question of integration, affiliation, personal identity formation, social and cultural development of the new citizens is relevant from the dual point of view of the relations between individuals and between them and the larger society.

Against this background, the general hypothesis that motivates this article is that the identity and cultural belonging is dynamically determined through the relationship with those who have a similar linguistic and cultural origin, but also with the new groups met in the country of destination. The relational dimension brings up a new paradigm concerning cultural identity, linked to the exchange with the various human, spatial and temporal contexts.

The wide diffusion of the Italian as a “lingua franca” for those who has arrived in Italy from school age, but also for newcomers, has been growing since the early Nineties. In fact, the term of “Italian as second language” does not represent anymore the extensive and widespread use of this language made by the young people with foreign origin in the exchanges with the natives, but also in inter-ethnic relationships.

Italian has become actually a “second mother tongue”, visited and practiced, next to the maternal language of origin. The Italian, in fact assumes an important place in the construction of the identity for adults and young people, in the exchanges and in the narration of the personal or family migration. The Italian language then looks like:

- the language of “survival” for the adults newly arrived in Italy;
- language of work and exchanges for those who reside here since longer;
- language “to certify” for those who demand the release of the residence permit;
- language “of the children” for foreign families, whose children every day bring at home new terms, new meanings and stories¹.

¹ National Observatory of the integration of foreign students - Osservatorio nazionale per l'integrazione degli alunni stranieri e per l'intercultura, Gruppo 1. Insegnamento dell'italiano come lingua seconda e valorizzazione del plurilinguismo (2015),

The context has therefore become very complex and diversified: the needs related to acquisition of Italian on behalf of the newly arrived adults and children, coexist with the needs to refine the language, to better the mastery and quality of expression in the workplace and in everyday situations, improving vocabulary, syntax, oral expression and writing. These needs are linked to the expression of the self and the strengthening of the social roles of the adult or young adult (student, citizen, user, patient, etc.).

The table below shows that the percentage of students with foreign background attending Italian courses as second language tends to increase with the age at arrival (from 14,4% to 70,6%). Worryingly, 21.9% of young people arrived in Italy between 13 and 17 years old report not having attended any Italian course. An alarming bell is ringing for this generation of students near to become full citizens at the age of 18. (see Tab. 4).

Table 4 – Students who have attended Italian as second language courses (%)

	Migratory generation			
	Italian foreign students born in Italy G2.0	Students arrived in Italy when they were less than 6 years G1.75	Students arrived in Italy when they were between 6 and 12 years G1.5	Students arrived in Italy when they were between 13 and 17 years G1.25
yes, organized by the school that I attended before the CFP	21.2	10.8	33.9	49.0
yes, organized by the CFP that I attend now	3.6	1.8	2.0	10.4
yes, organized by associations or other bodies	6.1	1.8	4.7	11.2
no, I have not attended any courses	56.2	79.6	54.9	21.9
No answer	12.9	6.0	4.5	7.5
Total	100	100	100	100

Source: data elaborated by Isfol, 2015

The questionnaire contained a question about the knowledge of Italian (speaking, reading and writing competence), a self-assessed measure which can give the representation of the perceived easiness in the everyday use of Italian. In the comparison between pupils with foreign background and Italians, as far as speaking and reading is concerned, there is no great difference: in both cases more than 90% of Italians and students with foreign origins declare to be good or very good, it is so evident that the Second Generation has reached the native children. More distance is recorded for writing: 8,2% of the students with a foreign background says they are poor or very poor in writing, compared with 3,1% of the Italian sample. If we

“L’italiano che include: la lingua per non essere stranieri. Attenzioni e proposte per un progetto di formazione linguistica nel tempo della pluralità”

consider into details this data it is remarkable that 15,8% of the 1.25 Generation arrived between 13 and 17 years old (6,9% of G1.5; 3,9% of G1.75; 5,6 of G2.0) affirms to be poor or very poor: a question should be posed whether this generation will be able to recover this important gap after the age of 18, without focused initiatives to avoid their permanent exclusion from an active and full citizenship.

Multilingualism is also a relevant issue. Italian educators are giving a growing attention to this matter, considering that multilingualism could, on one side, enrich the curriculum of the monolingual students giving them more instruments in an intercultural world, on the other, valorize the migratory history of the foreign students, who are otherwise made invisible in their specificity. The foreign students, compared to Italian students claim more frequently to know at least another language besides Italian, and in 31.5% of cases, even three languages. For Italians the second language indicated is predominantly English, while for students with foreign background, it is the mother tongue (Fig. 1).

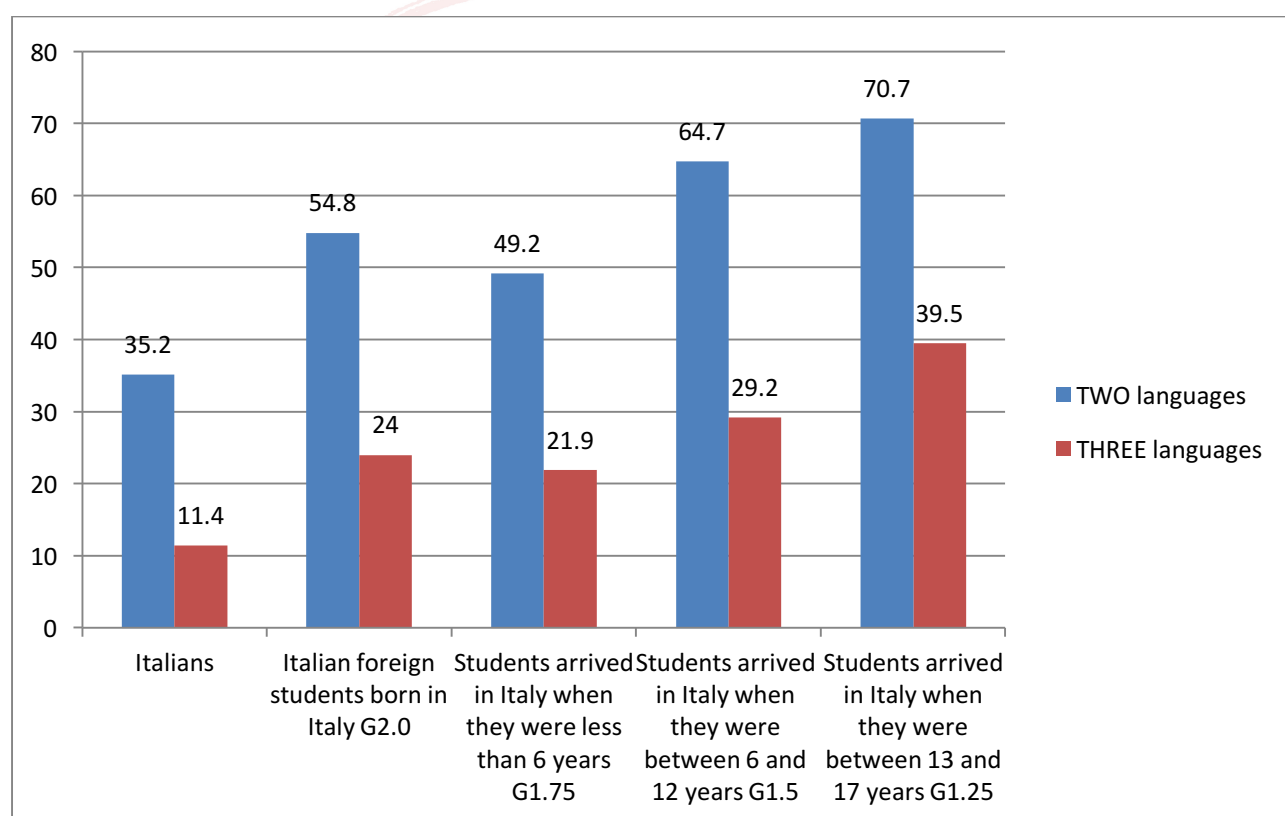


Figure 1 - Multilingualism: comparison among Italians and foreign students (migratory generations (Rumbaut, 97);%)*

* Only valid responses "very good" and "fair" (in a scale of four values) to the question: can you speak, read or write a foreign language (Italian included in "two" or "three" languages)

Source: data elaborated by Isfol, 2015

The analysis of the use of the language in everyday situations gives counter-intuitive results: Italian is the first language used by foreigners in relationships between peers, and this also applies to the most recent generations arrived in Italy, but it is even more relevant that several generations of foreign boys and girls use the Italian more frequently than the Italians, who (for 20.5% of the Italian sample), in many regions, prefer to use the dialect instead of Italian in the relationships between peers and within the family. Thus, in some regions the Italian language, has become a vehicular

language for the relationships within the institutions, even the school and training center. It is then possible to observe the presence of both intercultural and globalization dynamics and forces related to localism, which are still very strong and rooted in all Italian regions (see Tab. 5).

Table 5 – Italian (and dialect) in everyday life (1^o choice; %)

	Italians	G 2.0	G1.75	G1.5	G1.25
Italian	79.5	82.3	87.4	78.3	67.2
Foreign language	1.4	15.0	10.1	19.4	31.8
Italian dialect	19.1	2.7	2.5	2.3	1.0
Total	100	100	100	100	100
V.a.	1835	488	212	541	434

Source: data elaborated by Isfol, 2015

The scene is completely different considering the language used in the relationships with family members: for the students with foreign background mother tongue becomes the first language spoken, even for the generations (G 2.0) born in Italy, who still keep the mother tongue as the language which underline their belonging to the native community. Similarly, in a symmetrical perspective, for the Italian students, in one case out of five, it is the dialect – the language of the identity - to be dominant in the domestic relationships within the family (see Tab. 6).

Table 6 – First Language spoken in family relationships (1st choice, %)

	Italians	G 2.0	G1.75	G1.5	G1.25
Italian	78.5	39.2	42.5	30.3	19.0
Foreign language	0.6	59.9	57.5	69.3	80.8
Italian dialect	20.9	0.9	-	0.4	0.2
Total	100	100	100	100	100
V.a.	1835	488	212	541	434

Source: data elaborated by Isfol, 2015

Discussion and conclusions

The above considerations, drawn from the results of research conducted by ISFOL, including the context analysis conducted by means of interviews with directors, teachers and tutors of the training centers, lead us to present some concluding remarks in the field of strengthening of Italian as second language and the enhancement of a multilingual presence in the classroom as a cultural enrichment factor:

a) in the first place it seems necessary to move from spontaneous and scattered interventions to a systematic and formal plan to develop the provision of Italian as second language at regional and national level in primary education and for adults in the workplace. This plan should take into account regional specificities and promote collaboration between institutions that already have accumulated significant experience in the field, like in the case of the Adult Learning Centers, or the courses financed by the European Fund for the Integration-EFI, and the initiatives promoted by the non-governmental organizations with quality standards at European level.

b) Secondly, it seems necessary not only to develop a training offer for the achievement of the A2 level (corresponding to the beginner's level in the *Common European Framework of Reference for Languages* - CEFR) in Italian as second language (this certificate is necessary to get the residence permit for long-term residents), but also to develop devices and teaching methods to reach the most vulnerable users, those who are illiterate or with low literacy. It is necessary to develop learning content related to everyday situations. Also, it should no longer be delayed the development of content that meet even the highest levels of Italian language command (B1, B2, C1, C2, in the *Common European Framework of Reference for Languages* - CEFR) for those who already received a tertiary education in their own country.

c) An alarm bell sounds for the foreign students arrived in Italy from 13 to 17 years: in 15.8% of cases they claim to have little or no expertise in writing in Italian. This circumstance can seriously impair their ability to be a citizen and a worker, in the absence of specific interventions for this type of target. Similarly, the argument can be extended to newly arrived pupils, whatever the age at the arrival. In fact, comparative research, analyzing PIAAC data (Alieva Aigul, 2014), have demonstrated the limited usefulness of the model of "segregation" through the transit of newly arrived pupils in "special" classes before their introduction in general classes. Instead, the model of the immediate "integration" in general classes, as it is in Italy, seems to give better results in terms of performance of the second generation. Nevertheless, it is also true that today this practice is based mostly on the informal capacity of learning and adaptation of the pupils with foreign origins, and it is supported by the competences, as well informal, in terms of multicultural pedagogy and teaching methods, acquired by the teachers on the field. The provision of Italian as a second language should be, on the contrary, individualized, organized in 6-8 hours of teaching per week with teachers with specific preparation (A. Aluffi Pentini, 1995). Moreover, for foreign-born students compensatory measures also should be considered: for example, the recognition of the level of command in the mother-tongue and the recognition of "credits" for incoming students from foreign school systems.

d) "The right to education can only be fully exercised if the learners master the specific linguistic rules that are applied in schools and are necessary for access to knowledge. (...) In this context, particular attention should be paid, right from the outset of schooling, to the acquisition of the language of schooling, which, as both a specific school subject and a medium of instruction in the other subjects, plays a crucial role in providing access to knowledge and cognitive development"²: it is really relevant to make students acquire a good understanding of the "micro-languages", the specialized languages related to each discipline: "Every school subject (history, art, mathematics, etc., including the language of schooling as a specific subject) uses its own specific forms of oral and written expression: students should master these forms in order to successfully participate in school activities"³. It is therefore important that teachers are aware of their role as facilitators of learning and that they are supported in this role. In the Recommendation of the Council of Europe of the 2014 on the States on the importance of competences in the language(s) of schooling, some

² Recommendation CM/Rec(2014)5 of the Committee of Ministers to member States on the importance of competences in the language(s) of schooling for equity and quality in education and for educational success.

³ Ibidem

operational runways are suggested for those responsible for educational contents and programmes to promote effective consideration of the linguistic dimensions in the various school subjects by:

- i. “making explicit the specific linguistic norms and competences which learners must be able to master in individual school subjects;
- ii. making explicit in the programmes and curricula the learning modalities that should allow all learners, and in particular the most vulnerable among them, to be exposed to diversified language-learning situations in order to develop their cognitive and linguistic capacities;
- iii. highlighting, in the programmes, convergences in the linguistic dimensions of the various subjects, in such a way as to reinforce the effectiveness of the educational project;
- iv. recalling, in the programmes for the language of schooling as a specific school subject, the special place which this language holds because of its cross-cutting effect on all the learning processes conducted in that language;
- v. encouraging authors of educational materials to ensure that such materials explicitly take account of the linguistic dimensions of the different subjects;
- vi. continuing and extending research in this field.”⁴

In this field, in Italy, tutoring projects have been successfully implemented with university students, native and with foreign origin, who support foreign pupils in the learning of Italian as second language for 60-100 hours per year and receive credits for their efforts.

⁴ Ibidem

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Japanese EFL Learners' Experiences with Written Corrective Feedback

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Abstract

The debate regarding the efficacy of WCF (*Written Corrective Feedback*) spans two decades. Much of the research to date has utilized quantitative methods to investigate students' written output, which all too often neglected learners' experiences and learner diversity. In contrast, this research employs a qualitative approach in an interpretive paradigm to explore the experiences of adult EFL students in Japan on the usefulness of WCF, its effect on their learning and how learner diversity influences the uptake of feedback. This case study investigated experiences with the following feedback modalities: focused direct WCF with content feedback, and focused indirect WCF with content feedback. The innovative exploration and incorporation of student perspectives on these experiences entailed in-depth interviews with the learners. This case study found that participants described the learning generated from WCF as minimal and that WCF did not cause the negative effects that has been posited in some of the literature to date. The need to accommodate learner diversity in the writing classroom and for learners to understand the culture the feedback is embedded in was identified. Practical pedagogical implications to create a classroom environment that promotes better utilization of content feedback and WCF are discussed.

Keywords: written corrective feedback, content feedback, student perception, EFL, adult learners, Japan.

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Introduction

While Written Corrective Feedback (WCF) is a longstanding and commonly utilised remediation tool, its implementation and efficacy in terms of improving the grammatical accuracy of students' writing is contested. Notwithstanding the importance of quantitative research in this field, shifts in ontological and epistemological positions have increased awareness about the significant contribution to be made by qualitative research into WCF. This study's post-positivist and exploratory orientation facilitates an understanding of the diverse social, cultural and personal relationships and influences that can affect student learning and the "usefulness" of different feedback techniques in language teaching. Most significantly, this case study incorporates the learners' personal voice in its investigation by including the learners' evaluative and affective reception of WCF.

The current study explores the existing literature and contesting views on the usefulness of WCF; identifies potential shortcomings in previous studies to develop its own research questions; presents its methodological innovation; describes and discusses the findings of the case-study in terms of its research questions; before presenting some conclusions and possible directions for future research into WCF.

Literature Review

The case against WCF

Syntheses of studies on WCF and its role in second language learning that were carried out in the 1990s concluded that WCF does not improve the grammatical accuracy of student writing (Leki, 1990; Truscott, 1996). Furthermore, Truscott (1996, 1999, 2004) argued that WCF should be abandoned because of its potentially "harmful" (1996, p. 328) effects.

Several studies which compared the benefits of WCF and content feedback concluded that content feedback is more useful than WCF in helping learners improve the grammatical accuracy of their writing (Kepner, 1991; Semke, 1984; Sheppard 1992). Furthermore, Semke (1984) found WCF to be demotivating for students and Sheppard (1992) found it caused learners to reduce the complexity of their writing.

The above studies have been shown to demonstrate methodological flaws which weaken their contentions (Bitchener & Ferris, 2012). In the studies conducted by Kepner (1991) and Sheppard (1992), only one of several written products was examined to measure the learning initiated via WCF. Because gains in grammatical accuracy are not part of a continuous linear process (Nunan, 2001), it could be argued that all of the written products should have been analysed.

The case for WCF

Studies by Ferris and Roberts (2001) and Bitchener, Young and Cameron (2005) found that focussed WCF was an effective remediation tool for rule-based linguistic items. However, the content group outperformed WCF groups when word-choice errors only were analysed (Ferris & Roberts, 2001) and there was no significant difference when prepositional errors were examined (Bitchener et al., 2005). The

results of Bitchener et al. and Ferris and Roberts indicate that WCF is potentially effective for addressing certain simple, rule-based linguistic items.

Numerous studies have continued the investigation into the effectiveness of different types of focused WCF when treating rule-based language items. Whilst results are not completely congruent on exactly what type of focused WCF is most effective, the results are congruent in revealing that focused WCF improved the accuracy of use when compared with control groups (Bitchener & Knoch, 2009a, 2009b, 2010; Chandler, 2003; Ellis, Sheen, Murakami, & Takashima, 2008; Sheen, 2007; Sheen, Wright, & Moldawa, 2009).

The aforementioned studies are, however, also not flawless in terms of their design. Ferris and Roberts (2001) measured learning using revised texts rather than new writing tasks, which does not provide evidence of any actual learning having taken place (Truscott 1999).

Additionally, many studies supporting the use of WCF in language learning used pre-/post-testing to demonstrate and measure learning initiated through WCF (for example, Bitchener 2008; Bitchener & Knoch, 2009b). We contend that improvement displayed in post-tests may or may not be due to the provision of WCF – there has been no qualitative research to investigate the possible effects of other variables. Finally, much of this research was conducted with participants from various backgrounds. However, the possible influence of participants' educational and cultural background on the efficacy of WCF (in terms of facilitating their learning) received little or no attention, despite there being evidence of its significance (Schulz, 2001).

Despite the extensive research on WCF, the voice of the student has been given very little attention. Studies have found that adult learners perceive WCF as a learning tool, that students prefer to have all errors corrected and that they believe WCF to be necessary to improve their writing (Amrhein & Nassaji, 2005; Diab, 2005). This case study was designed to address this gap and investigate the usefulness of direct and indirect WCF combined with content feedback from the perspective of the learner in the context of EFL instruction in Japan. Based on these aims, the following research questions were formulated:

1. How useful do learners find direct WCF and indirect WCF in improving the grammatical accuracy of their writing?
2. Do content feedback and/or WCF affect learners negatively?

Methodology

A case-study approach was implemented in order to provide an in-depth description of participants' experiences with WCF.

The sample for this case study comprised of three Japanese adult English learners. Participants' educational and cultural backgrounds were analogous: Japanese nationals who completed all elementary, junior- and high school, and tertiary education in Japan. After completing tertiary education, all participants spent a minimum of six months studying English in a native English-speaking country, primarily to increase their scores in either the TOEIC or IELTS English proficiency

tests. Results of these tests can be summarised as follows (pseudonyms have been used):

Akiko	TOEIC 735 (Listening 395, Reading 340)
Yoko	IELTS Band 6 (Reading 7, Writing 5.5, Speaking 6, Listening 6.5)
Takeko	TOEIC 855 (Listening 495, Reading, 360)

Table 1: Participant level

Instruments and Sequence

Two instruments were used for data collection: participants' writing tasks and one-to-one interviews. Participants produced three writing tasks – with two drafts for each task – within an eight-week period. After receiving feedback for the first draft, participants considered the feedback and made changes to their written work as they saw fit.

The sequence of the study was as follows:

Written Task 1 – content feedback only

Written Task 2 – content feedback and direct WCF (with a written meta-linguistic explanation)

Written Task 3 – content feedback and indirect WCF

After completion of all three writing tasks, participants' writing was analysed for trends. Semi-structured interviews were then conducted.

Due to the evidence that WCF is most useful when it is focussed (Han, 2002; Sheen et al., 2009) and when used with rule-based linguistic items (Bitchener et al., 2005; Ferris & Roberts, 2001), it was decided to employ focussed WCF and to include rule-based items but ignore non-rule based items.

Findings and Discussion

The following section presents the findings in alignment with the research questions: each feedback type is analysed separately where possible. Following the presentation of the findings pertaining to each research question is a discussion which describes possible reasons for the outcomes, theoretical implications and any issues raised by the three participants.

Research Question 1: How useful do learners find direct WCF and indirect WCF in improving the grammatical accuracy of their writing?

Perceived usefulness of direct WCF

All participants described direct WCF as easy to understand and helpful. Direct WCF requires very little autonomy and accordingly was implemented successfully by all participants. Despite the increased volume of feedback when compared with the first writing task, no participant experienced negative feelings. On the contrary, Akiko

actually said she was “happy” with the extra volume. All participants appreciated the meta-linguistic explanations that accompanied the direct WCF as it enabled them to understand their errors.

Despite the unanimous perception that the direct WCF was helpful, all participants expressed a lack of confidence when asked if they now better understood how to use the corrected linguistic items than before receiving the WCF. This perception of uncertainty was borne out when the same linguistic items were used with little or no improvement in the subsequent writing task and was also evident in the participants’ inability to self-correct the same errors when provided with indirect feedback. Participants were also unable to provide any explicit knowledge on how to use the corrected linguistic items when they were asked to provide examples of how the WCF was helpful. This in itself does not indicate that nothing was learnt – language learners’ accuracy when using a specific linguistic item can be variable even when the situation is the same (Nunan, 2001). However, from the students’ perspective, learning was described as minimal.

This notwithstanding, both Yoko and Takeko articulated that the main insight they derived from the direct WCF was not so much how to use the items, but, rather, an increased awareness of the linguistic items they needed to focus on in order to improve the grammatical accuracy of their writing. This corroborates Hyland’s (2011) finding that students find that WCF has consciousness-raising value. Thus, in this case study, direct WCF was not perceived as a tool which directly improves grammatical accuracy, but, instead, as a means of identifying those areas in the learners’ interlanguage that require attention and remediation.

Two of the three participants stated that direct WCF was their preferred method of feedback for addressing grammatical errors. This result supports the observations of Amrhein and Nassaji (2005), who found direct WCF to be the preferred method of feedback and proposed that this stemmed from the perception that it is the teacher’s responsibility to correct errors. However, this case study indicated there were different reasons for the positive perception of direct WCF. For Akiko, the direct WCF seemed to alleviate the *angst* she experienced due to a lack of confidence in her own grammatical abilities. Takeko believed that she experienced direct WCF as the most helpful form of feedback because of the particular learning stage she was at. She suggested that indirect WCF might possibly be more useful at a later stage of learning.

All participants described the learning that occurred as a result of the direct WCF as minimal. This aligns with findings from Robb, Ross and Shortreed (1986); Semke (1984); Sheppard (1992) and Truscott (1996). There are two factors that may have contributed to this perception. Firstly, due to the time constraints of this study, participants received direct WCF only once. Their perception of the efficacy of this feedback modality may have varied had the participants received direct WCF multiple times over an extended period. However, prolonged use of direct WCF in other EFL/FL contexts (Robb et al., 1986; Semke, 1984) was not shown to facilitate significant improvement, so it is equally possible that this perception would not have changed. Further investigation is nonetheless required before any conclusions can be made for the Japanese context. It should be noted that Bitchener and Knoch (2009a) and Sheen (2007) claimed that WCF demonstrated a significant effect when provided once only – a claim that was not substantiated in this study.

A second possible reason for participants describing their learning from direct WCF as minimal is the lack of natural input they received. This case study found that participants viewed direct WCF as a tool that raised awareness rather than a learning tool. Whilst results from this small study cannot be extrapolated, this finding suggests an interesting proposition: namely, that this raised-consciousness value may have been significant factor in previous studies in ESL contexts that found direct WCF to be an effective learning tool. These students' greater opportunity to observe targeted linguistic items being used correctly in the abundant natural input available in an ESL context may have facilitated their improved grammatical accuracy with regard to these items in post-test scores. This contention aligns with Schmidt's (1990) notion of noticing, Harmer's (2007) observation that certain language items become salient after they become "noticeable", and Krashen's (1976) hypothesis that both "informal environments and formal instruction" (p. 167) contribute differently to language ability in adults and that informal environments can provide the required input to operationalise the language acquisition device. Furthermore, congruent with McLaughlin's theory (as cited by Bitchener & Ferris, 2012) that learnt knowledge can become acquired, it is possible that the contribution made by the informal natural input is implicated in the process of a learners' explicit knowledge becoming automated knowledge. This theory could also explain why studies in ESL contexts have more often than not found WCF useful, while many (but not all) studies in EFL/FL contexts have found WCF to be ineffective.

An investigation of this contention is warranted in the EFL context of Japan. Because of Japan's monolingual culture (Gottlieb, 2008), there is little (if any) English input or output beyond the classroom, which is a stark contrast to most ESL contexts. Accordingly, such a semi-controlled environment would facilitate testing of how much learning occurs due to WCF whilst considering input and output. If there is indeed a strong causal relationship between WCF and learning, as often suggested in the literature (see Bitchener & Knoch, 2009a, 2009b, 2010; Sheen, 2007; Sheen et al., 2009), then learning should still be evident despite lower levels of input and output. This would also facilitate the development of a research paradigm that investigates whether and how WCF, in combination with other factors, may be useful in helping L2 learners improve their grammatical accuracy.

Perceived usefulness of indirect WCF

Whilst all participants found it difficult to implement the indirect feedback, their perception of its usefulness and success in implementing it varied. In most instances, Yoko succeeded in finding the error and making the appropriate edit. For Yoko, the indirect feedback provided the opportunity to attend to the grammatical accuracy of a text she had already written. In the interview she articulated that the cognitive load of caring about grammar while actually writing the essay was too burdensome for her, explaining: "When I concentrate on writing essay I cannot care everything, like grammar". Yoko stated that indirect WCF was the most useful type of feedback for her because she enjoyed searching for her own errors and the previously received direct WCF equipped her to perform this task. Semke (1984) found participants expressed a negative attitude toward indirect WCF because they did not feel equipped to utilise it. This study suggests that such negative feelings might be avoided by providing students with direct WCF prior to providing them with indirect WCF.

Takeko did not find the indirect WCF useful. She commented: “[It was] sort of hard to find the errors” and “I’m still not sure what is wrong and where”. Takeko said that this did not generate any negative feelings but that she was keen to know exactly where her errors were. Overall, Takeko was able to successfully detect and correct her own errors with approximately 50 per cent accuracy.

Akiko’s response to how she felt about indirect WCF implied some negativity when she said that “it was really difficult” and described her feelings as “troublesome”. This was reflected in her inability to successfully detect and correct errors in her second draft, in which her unsuccessful attempts significantly outweighed her successful corrections. However, Akiko acknowledged indirect WCF could potentially benefit learning.

Previous studies that have compared direct and indirect types of feedback have been incongruent in their findings. While Lalande (1982) found indirect WCF to be more useful than direct WCF in improving grammatical accuracy, Robb et al. (1986) and Ferris and Roberts (2001) detected no significant difference. On the other hand, van Beuningen, Jong and Kuiken (2012) and Bitchener and Knoch (2010) found no significant difference in the short term, but stated that direct WCF was more effective in the long term. However, the effect of providing a sequence of direct and then indirect WCF has not yet been investigated. Yoko’s comments imply that the usefulness of indirect WCF could be influenced by prior provision of direct WCF, consequently highlighting the need for further investigation of this possibility. Takeko also touched on this issue by stating indirect WCF was not helpful because she was not yet at a level that could utilise it. After a sustained period of direct WCF, Takeko may have been better equipped to utilise indirect WCF, which, in turn, may have significantly changed her perception of its usefulness. Another issue raised by these comments is how the term *useful* is conceptualised. If its conceptualisation shifts from the visible criterion of improved grammatical accuracy in written products towards encompassing the possible effects of indirect WCF on the nonlinear learning process (Nunan, 2001), the perceived usefulness of indirect WCF may take on new dimensions.

A potential factor in Akiko’s negative view of indirect WCF was that it did not tell her which type of errors to look for, something she seemed unable to intuit. Yoko and Takeko’s self-corrections and interviews indicated that they intuitively understood that the direct WCF pointed out their common errors and that these were the types of errors to look for when utilising indirect WCF. Akiko did not make this connection, and she tried to correct linguistic items that the direct WCF from the previous writing task did not highlight. This emphasises the need to explicate which type of errors learners should be focussed on when utilising indirect WCF.

Takeko and Yoko stated they would have preferred the inclusion of an extra step in the drafting process (before final submission) when utilising indirect WCF. In this study, participants received indirect feedback on the first draft and then resubmitted their final draft of the writing task. The feedback provided for the final draft did not indicate which errors were accurately self-corrected, but as per methodological and ethical considerations, focused on general feedback about the writing task as a whole. Both Yoko and Takeko believed it would be beneficial if an additional draft were to

be utilised before final submission, with this additional draft containing direct WCF which would identify how successfully the indirect WCF had been utilised.

This recommendation identifies a further aspect of WCF that requires investigation: namely, whether a drafting process of indirect WCF followed by direct WCF would increase the usefulness of the WCF for the student. The absence of this “additional” draft appears to be a factor in Takeko’s perception of indirect WCF as not useful. At this point, though, the issues of practicality raised by Truscott (1996) are salient. This would significantly increase the time and effort required by the teacher to guide a large group of students through the whole process in a way allowing them to move on to a new writing task in an appropriate time frame. A possible compromise could be the additional step being performed by peers rather than the teacher.

Research Question 2: Does content feedback and/or WCF affect learners negatively?

Negative effects of content feedback

Whilst all participants responded positively to questions pertaining to the usefulness of content feedback, close observation of one of the participant’s writing revealed a negative effect. In Akiko’s first writing task, content feedback was used to clarify the writer’s intention with the use of a non-restrictive relative clause. In the interview, Akiko was able to clearly state that she had been trying to use a relative clause but said she simplified the sentence due to not knowing how to make the clarification requested by the content feedback. This resulted in the sentence being changed from a complex sentence to a simple sentence.

Excerpt from Akiko’s Essay 1, Draft 1:

There is Tsukiji where is the largest outer fish market in Tokyo.

Content feedback:

“where is the.....?” Are you asking a question?

Excerpt from Akiko’s Essay 1, Draft 2:

Tsukiji is the largest outer fish market in Tokyo.

Whilst the correction the participant made was correct, it reduced the degree of complexity, which is congruent with the negative effects of WCF found by Sheppard (1992). Furthermore, Akiko did not attempt to use a relative clause in all subsequent writing tasks. Thus, this case study found that content feedback, not WCF, may cause a language learner to avoid using a linguistic item in subsequent writing tasks.

Despite acknowledging that minor errors were not a major problem if communicating with an L2 Japanese speaker in Japanese, Akiko said she valued grammatical accuracy over communicative effect. Her reasoning for this was: “I care because it is concerned with myself”. Therefore, in Akiko’s case, it could be argued that the real cause of the negative effects was not the content feedback, but, rather, her unrealistic ambition of writing grammatically perfect sentences. This supports Diab’s (2005) contention that students may have “unrealistic beliefs about writing” (p. 40) and

findings that some students have the misconceived notion that the goal of their writing is error-free writing (Amrhein & Nassaji, 2005).

Akiko's case corroborates Saito's (1994) argument that teachers need to shift student perceptions about what is beneficial. This could entail teachers highlighting what their expectations are and what the students' expectations should be, and by explaining their rationale for using a particular type of feedback and how it will improve the students' writing.

Negative effects of WCF

The results from both the interviews and written tasks clearly indicate that WCF did not have a negative impact on participants. All participants clearly stated that, after receiving direct WCF for the second writing task, they did not avoid or feel more hesitant about using the corrected linguistic items in the subsequent writing task. This response was supported by the analysis of participants' writing tasks. Linguistic items that received direct WCF were not avoided in subsequent writing tasks by any of the participants. It should be noted, however, that the corrections focused on articles, verbs, and noun endings, which are essentially very difficult to avoid.

Another potential negative impact of WCF identified by Semke (1984) is a reduction in fluency, or the time it takes to produce a writing task. Participants were asked if they spent more time on subsequent writing tasks due to concern over the accuracy of corrected linguistic items. Again, all participants clearly indicated that receiving WCF did not cause them to spend more time on their writing, nor did they say they were more anxious or hesitant when attempting to use these linguistic items again. Responses to this question included:

Takeko: Nah. I'm always making mistakes. [*laughing*]

Yoko: Just write [not worrying]. [*laughing*]

Akiko indicated that she did worry about grammar and did spend a lot of time worrying whether a linguistic item was correct or not. However, Akiko made it clear that this was not related to the WCF, but that this occurred with all writing tasks, including the stage in the study where no WCF had been provided for the writing tasks. This suggests Akiko's anxiety was not associated with the WCF but, instead, stems from her belief that she has low grammatical accuracy, as revealed in her interview when she said: "I'm not good at [grammar]".

Misunderstandings: a potential problem with both content and WCF

There were instances where the teacher misunderstood the participant's intended meaning and consequently requested corrections that misrepresented their opinion. Takeko made this clear by stating: "First draft, always I wrote, like, making some sentence but when I get the feedback sometimes you get the wrong way, ... like not what I want to say, but like just don't know how to say". Takeko highlighted the following example:

Excerpt from Takeko, Essay 3, Draft 1:

Blue sky in the summer is very shinney and not too hot compare to Japanese summer.

The feedback given for this was:

What do you mean by "shiny" sky?

The feedback was assuming that the participant was attempting to say that the sky is clear, free of pollution and so forth. However, during the interview Takeko stated that she was trying to say "shiny sky" meant that there was a lot of sunlight, which resulted in plants and trees assuming a beautiful green colour that shone against the blue sky. This confusion affirms the claim that there is sometimes a mismatch between what the student was thinking and what the teacher thinks the student is trying to say (Ferris, 1995; Zamel, 1985).

A similar phenomenon occurred with Yoko. In the third essay, indirect feedback was provided for the following sentence:

Third, I like happy ending.

Indirect feedback was given on the premise that the noun ending would be changed to its plural form, stating a general preference for movie endings. However, Yoko changed the sentence to the following:

Third, I like the ending of the movie.

The change Yoko made expresses a liking for the ending of a particular movie, not a general preference. Two issues arise from this unexpected edit. First, Yoko produced language the teacher did not think she was capable of. This gives credence to Truscott's (1996) argument that interlanguage is complex and it is extremely difficult for a teacher to estimate which linguistic items a student is ready to acquire. The second issue is that if direct feedback had been provided for this writing task, the student would have most likely felt obliged to make a change that not only misrepresented what they wanted to say but would also have restricted their language use.

Consequently, this study found that the use of direct WCF and/or content feedback can not only potentially cause a learner to misrepresent their opinion, but may also in some circumstances restrict the language use of a learner. (This was not an issue with indirect WCF due to its autonomous nature.) The findings highlight instances where the researcher had misunderstood the participants' intention and thus provided

feedback that was unhelpful. This reinforces the usefulness of one-to-one interviews between the teacher and student to facilitate clarification of both the student's intention with certain phrases and the student's understanding of the teacher's feedback. Zamel (1985) argues for the importance of the teacher moving away from an authoritative role that takes control of the text and towards a collaborative relationship with students to confirm what the writer is trying to say and offer suggestions through discussions with the learner.

Conclusions

This case study investigated the experiences of Japanese EFL learners with WCF from the perspective of the learner. It draws our attention to, and at times challenges, a number of issues and findings in the current literature on feedback in L2 writing. It also highlights possible implications for the L2 classroom and a number of issues that warrant further investigation. It is not intended that the conclusions drawn in this study be postulated and extrapolated back into the adult EFL context of Japan, but, rather, that they be explored in future studies with larger samples facilitating more decisive implications and conclusions.

This case study found:

Learning derived through the use of direct WCF in the short term was described as minimal. Participants described direct WCF as a device that increased awareness of common errors rather than a learning tool per se.

Direct WCF did not cause any anxiety or avoidance in subsequent writing tasks for participants in this study.

The potential negative effects of WCF can also be generated by content feedback. This study suggests that such negative effects are not necessarily related to feedback (or type of feedback), but, rather, originate from a learner being overly conscientious about grammar.

Learner misconceptions need to be addressed by teachers to support learners who are overly anxious about grammatical accuracy.

The preferred type of feedback to address grammatical issues varies according to the learner. This highlights the need for teachers to explain the rationale of the feedback used and expectations of how it will be utilised to ensure there are minimal gaps between the teacher's and learners' expectations.

There were cases when the teacher misinterpreted the writer's actual intentions and provided direct WCF or content feedback that either limited the student's language use or misrepresented their ideas. In order to prevent this, teachers and learners need to work co-operatively to minimise misunderstandings.

There were instances where learners simplified their writing due to feeling unable to express themselves. Consequently, learners need to note these instances and discuss them with the teacher.

By providing direct WCF before providing indirect WCF and specifically stating

which errors should be addressed, potential negative effects of indirect WCF, as discussed by Semke (1984), may be avoided.

When indirect WCF is implemented, learners believed they would benefit from direct feedback concerning the errors they successfully/unsuccessfully found and corrected, thus adding an extra step in the drafting process.

By investigating learners' experiences, this study argues a reconceptualization of how WCF's usefulness is identified. Rather than a simple causal link between feedback and language gains, it argues for a re-examination of the role WCF plays (or doesn't play) within the learning process itself.



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What Students Want: A Study of Desirable Teacher Characteristics as Perceived by Their Students

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Abstract

The purpose of this research was to investigate student preferences and characteristics exhibited by their teachers. A comparison of these opinions was also conducted based on students' sex, age and academic achievement. The results of this study will provide a guide for universities to assist teachers to improve the quality of their teaching. A sample group of 79 students studying in a Faculty of Information Technology and Communication at a Thai university were selected using simple random sampling techniques. The research used questionnaire and interview techniques which were designed to determine participants' attitudes using a five point Likert scale with an overall reliability value of 0.938. Descriptive statistical analysis included percentage, mean and standard deviation. Findings indicate that students prefer teachers who are approachable, treat them with respect, are obviously well prepared, communicate well and exhibit a teaching style that students find easy to understand. Interestingly, student preferences were influenced by sex and age, but there was no statistical significance related to student academic achievement. This research clearly indicates that teachers who are approachable, have good communication skills, and are well prepared are more valued by students. Students are more likely to attend lectures and engage with these teachers and therefore be more successful at university.

Keywords: higher education, teaching, student attitudes, instruction

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Introduction

Being a good teacher who can engage and motivate students to learn, is one of the most important and hardest jobs in our society. The role of the teacher (teacher is the term being used in this paper and includes teachers and instructors) determines the quality of education and the capacity of citizens to continue learning lifelong, which in turn affects the economic, and political growth and stability of a country (Hanushek & Woessmann, 2010; OECD, 2012). Teachers can have a powerful influence on their students across all levels of education, particularly at university where students are studying to acquire the skills and knowledge they need to enter enterprise organizations and professions at a higher level. University education is a critical component of economic development worldwide. It provides high-level knowledge, skills and the practical training essential for many professions such as teachers, doctors, engineers, environmentalists and IT personnel to name a few. Universities and their research programs drive innovation and development which in turn creates stronger local economies, supports civil society, and provides the next generation of leaders in government.

Learning is a social experience where the relationship between the teacher and the learner can determine academic success. In wholly online learning environments students experience feelings of frustration, anxiety, isolation and lack of motivation, and consistently crave communication and the face-to-face relationship with the teacher (Combes & Anderson, 2006; Combes et. al., 2011; Gulatee et. al., 2011) that is lacking in the online environment. A good teacher requires qualifications, both broad and focused knowledge in their specialist area, the ability to think critically, be flexible and adaptable to change as the teaching-learning environment is subject to change. Great teachers also have a classroom presence and are able to connect with and motivate their students to engage and learn. It is often assumed that students are only interested in the achievement of high grades, but what is it they are looking for in a teacher, especially at university level where education has traditionally been self-directed and self-initiated, ie. the student is responsible for their own learning?

This paper outlines a research study conducted at a Thai university with students from a faculty of Information and Communications Technology. It investigated student preferences and the characteristics exhibited by teachers that students considered to be the most desirable. Students who are motivated to engage with their learning and the experts who teach them are more likely to experience satisfaction, complete their courses, remain in contact with the university and return for higher education, ie. they remain part of an ongoing learning community. The results of this study provide a guide for universities to assist teachers who may be experts in their field but not teachers, to improve the quality of their teaching and provide students with satisfying learning experiences overall. Retention and the completion of courses means more graduates which leads to higher economic growth in society.

Literature review

Study at university level plays an important role for developing countries trying to become integrated into the global economy. Higher education leads to higher economic growth, a reduced incidence of poverty, a rise in the average wage, an increased share of trade in gross domestic product, and improved health outcomes for

members of that society (Matsushita, et. al. 2006; OECD, 2012; ABS, 2012; Kruss, et. al., 2015; European Commission, 2015). Countries which raise their levels of participation in higher education have been shown to benefit most and exhibit higher levels of integration in the world economy. In addition, there is growing evidence that university education empowers domestic constituencies and affects the creation and building of strong government by nurturing favourable regulatory frameworks and governance structures. These are vital to a country's ongoing political stability and efforts to increase social capital and promote social cohesion, which is an important determinant of economic growth and further development.

Teachers who work in higher education are an important aspect of creating a strong foundation for economic growth and political and social stability in countries. As a result of their efforts universities provide graduates who are not only intelligent and thinking individuals, but are also more likely to exhibit moral behaviours, be able to adapt to changing social conditions and flexible enough to learn lifelong.

Higher education institutions ... [are] seen to play an essential role in society, by fostering innovation, increasing economic development and growth, and improving more generally the wellbeing of citizens (European Commission, 2015).

Most of the research in this area deals with what educators think students want or what educators think makes a great teacher and is often based on personal or anecdotal evidence (Jenkins, 2016). Difficulties arise when asking both teachers and students about what makes a great teacher. Is the response about popularity or the characteristics and attributes of the teacher? Is the student response based on academic achievement or that personal teacher-student dynamic that motivates the student to learn and explore beyond the topic? Individual teachers are classified differently by their students. Young (2009) found that perceptions of teacher capability depended on the location of the educational institution (country), the level of students being taught and the kinds of communities in which students live, as well as the cultural background of that community. Young also found that thorough lesson planning by teachers is a prerequisite for good teaching. Teachers also need to be good leaders who have a sound knowledge base in their curriculum area and are able to implement multiple strategies in their teaching practice. Dean and Gillespie (2015) maintain that good teaching practices involve detailed understanding and knowledge as well as an understanding of developmental stages of individual students. Teachers need to be able to implement direct or explicit teaching strategies to build knowledge bridges for their students, as well as provide learning experiences which allow students to construct their own learning using authentic, every day experiences. Arnon and Reichel (2007) found students' perception of good teachers included professional knowledge, moralistic knowledge and an appropriate personality. In addition, good teachers at university level need to be experts and specialists in the subject they are teaching, as well as intellectual leaders who are researching to contribute new knowledge in their field of study. However, they need to be able to transmit this knowledge and skills to students. Teachers who develop strong professional relationships with their students, ensure their students feel they are accessible and approachable and care about their learning and them as an individual. Such teachers have an expectation that all students can and will achieve in their classroom, and they don't give up on underachievers. Effective teachers are also well prepared and organized. Most of the research regarding the perception of what constitutes a good teacher by students, includes the acquisition of more than just professional knowledge

or the achievement of student learning outcomes, a conclusion that is supported in this research.

Method

The research used quantitative method in the form of a web questionnaire to find out of how young people felt about their teachers (Steckler et. al., 1992; Williamson, 2000; Bryman, 2007; Creswell & Tashakkori, 2007; Pickard, 2007). Using the Web is cost effective and time efficient, enables the researcher to gain a snapshot of the current state of affairs, allows for a fast turn-around for data collection (Nancarrow, Pallister, & Brace, 2001), and has been shown to be a reliable alternative to telephone surveys (Braunsberger, Wybenga & Gates, 2007). Web questionnaires also afford participants with anonymity and allows them to answer the questions in a non-threatening and often familiar environment.

Questions for the questionnaire were developed using *Qualtrics* software, which is an online research survey tool that can be used for a range of data gathering purposes applicable to higher degree research. The questionnaire was designed to obtain information about participants' feelings and perceptions of the quality of teaching staff and used a five point Likert scale with an overall reliability value of 0.938. It is acknowledged that this method of recruiting students for the questionnaire may have skewed the sample towards the more ICT proficient students, however it could also be argued that university students are more likely to be proficient users of technology. It is also reasonable to assume that the sample may represent the middle to upper end of students in terms of ICT capability.

There were three parts to the questionnaire:

- demographic data collection;
- five questions about teaching (teaching and teaching techniques), teacher knowledge (professional knowledge), how teachers interacted with students (behaviors), communication skills (social) and approachability (moral). Each of the five questions also included 5 sub-questions;
- the five categories were explained to the students; and
- an open question was included where students could comment or add any additional information.

The survey data was analyzed using quantitative research method and descriptive statistics, and included quantity (N), the sum ($\sum X$), the percentage (%), the average (\bar{x}) and mean (S.D.). The data was analysed using SPSS and the data sets discussed here include the descriptive statistical analysis only. The survey was conducted in the Thai language for ease of use with data entry via drop down menus and radio buttons to ensure an uncluttered layout and accurate data entry.

Research Questions

What do students consider the most important attribute for a good teacher?

A major aim of the study was to provide information to both teaching staff and the university on how staff could improve their teaching styles and curriculum delivery so

students were satisfied with their experiences at university and therefore, more likely to continue to graduation.

Participants

The target population for this research study were students enrolled across all subjects in an Information Technology Major. Using random sampling technique (Williamson, 2000; Pickard, 2007) the number of students in the final survey group totalled 79 (33 females and 46 males). Approximately 58% of the participants were aged between 18 and 22, 26.5% were between 23-27, 5% were aged 28-32 and 10% percent were more than 32 years old. Participants were studying at all levels (undergraduate years 1-4). Demographic data is available in Table 1 below.

Variable students	Number	Percentages
Sex	79	100
Female	33	41.8
Male	46	58.2
Age	79	100
18-22	46	58.2
23-27	21	26.6
28-32	4	5.1
32+	8	10.1
Year	79	100
Year 1	6	7.6
Year 2	8	10.1
Year 3	25	31.6
Year 4	40	50.7
GPA	79	100
< 2.00	1	1.3
2.00-2.49	9	11.4
2.50-2.99	44	55.7
> 3.00	25	31.6

Table 1: Demographic data

Findings

Table 2 below provides information about desired teacher characteristics as perceived by the students, where \bar{x} is the mean and S.D. the standard deviation.

Teacher Characteristics - Perceived				
Student preferences	(\bar{x})	(SD.)	Significance >0.45	Rating
Behaviors	4.27	.578	high	1
Moral	4.26	.511	high	2
Social	4.22	.513	high	3
Professional Knowledge	4.10	.473	high	4
Teaching and Teaching Technique	4.09	.492	high	5

Table 2: Teacher characteristics – student perceptions

The dataset indicates that students prefer to have teachers who are outgoing and interact well with students (behaviours), are approachable (moral), have strong communication skills (social), evidence strong professional knowledge (academic) and employ good teaching and teaching techniques in the classroom. In the sub questions (Table 3), students indicated that good behaviours included kindness and generosity (\bar{x} = 4.35; S.D. = 0.680). Teachers who worked hard to improve regularly their teaching and skills (\bar{x} = 4.28; S.D. = 0.678), and who appeared to love teaching (\bar{x} = 4.24; S.D. = 0.664) were also important teacher attributes for students.

Teacher Characteristics - Perceived	(\bar{x})	(S.D.)	Rating
Kindness / generosity	4.35	.680	1
Professional knowledge	4.35	.661	2
Justice and reasonable	4.34	.658	3
Moral	4.29	.719	4
Improving teaching skills	4.28	.678	5
Considerate	4.28	.659	6
Treats everyone equally.	4.27	.746	7
Student confidentiality	4.25	.688	8
Responsible behaviors	4.25	.630	9
Love teaching	4.24	.664	10

Table 3: Teacher characteristics, student perceptions comparison by order of importance

Students preferred teachers who were approachable (moral), who were just and reasonable in their dealings with students (\bar{x} = 4.34; S.D. = 0.658), were considerate (\bar{x} = 4.28; S.D. = 0.659), treated everyone equally (\bar{x} = 4.27; S.D. = 0.746), and exhibited responsible behaviors such as arriving on time, were obviously prepared for class and scaffolded student learning with notes and templates (\bar{x} = 4.25; S.D. = 0.630). Students also wanted teachers they could communicate easily with (social), who provided advice and treated student information in a confidential manner (\bar{x} = 4.25; S.D. = 0.688). Above all, staff who were perceived as kind and generous, were knowledgeable in their field, and approachable by students were considered to be good teachers.

Students wanted teachers who were just and reasonable in their dealings with students, treated them with respect and spoke politely to them (\bar{x} = 4.23; S.D. = 0.733), were good role models (\bar{x} = 4.22; S.D. = 0.592) and included strategies for social growth as part of classroom practice (\bar{x} = 4.20; S.D. = 0.686). Students also wanted their teachers to have strong academic knowledge, although this attribute appeared fourth on their list of preferences. They also wanted teachers to have good teaching strategies and provide clear guidelines for students to follow (\bar{x} = 4.19; S.D. = 0.681), clarify the scope of the learning required (\bar{x} = 4.11; S.D. = 0.640), develop consistent teaching techniques for students to pursue new knowledge (\bar{x} = 4.09; S.D. = 0.624), research a range of techniques to improve classroom instruction (\bar{x} = 4.06; S.D. = 0.722) and be able to teach students how to acquire deep knowledge in a subject (\bar{x} = 4.05; S.D. = 0.658).

An important finding is that teaching techniques in class, while important, were less important to students than teacher approachability and the social aspects of the teacher-learner dynamic. Teachers who were perceived as more skilled and exhibited a wide knowledge of their subject area (\bar{x} = 4.18; S.D. = 0.675), used new

technologies (\bar{x} = 4.14; S.D. = 0.674), provided clear examples (\bar{x} = 4.08; S.D. = 0.694), allowed participants to ask questions and comment in the class (\bar{x} = 4.06; S.D. = 0.627) and created a collaborative atmosphere that encouraged students' interest in work being covered in class (\bar{x} = 4.01; S.D. = 0.670) were also considered better teachers.

Student factors – gender

The comparison using t-test analysis between male and female students found that in this particular group male students preferred teachers who exhibited good teaching and teaching techniques, were approachable (moral) and had strong communication skills (social) more than females. The difference between males and females was statistically significant at the 0.05 level as shown in Table 4.

Teacher Characteristics - Perceived	Male			Female			t	Sig.
	N	(\bar{x})	SD.	N	(\bar{x})	SD.		
Teaching and Teaching Technique	46	4.113	.431	33	4.067	.572	.411	.033
Professional Knowledge	46	4.100	.421	33	4.103	.543	-.028	.105
Moral	46	4.270	.430	33	4.261	.613	.076	.017
Social	46	4.277	.448	33	4.151	.593	1.074	.043
Behavior	46	4.244	.538	33	4.206	.639	.282	.222

Table 4: Teacher characteristics – perceived, comparison by gender

Student factors – age

The comparison using f-test analysis between students of different ages found there was a significant difference between younger and older students. The average level of statistical significance was 0.05 in terms of teaching and teaching techniques and morality. Students who were aged between 28-32 years valued teaching and teaching techniques and morality more than students aged between 18-22 years. These results are available in Table 5.

Teacher Characteristics - Perceived	18-22 (n=46)		23-27 (n=21)		28-32 (n=4)		32+ (n=8)		F	Sig.
	(\bar{x})	SD.	(\bar{x})	SD.	(\bar{x})	SD.	(\bar{x})	SD.		
Teaching and Teaching Technique	4.083	.521	4.076	.475	4.45	.412	4.025	.392	3.164	.009
Professional Knowledge	4.087	.480	4.133	.483	4.45	.526	3.92	.337	1.524	.186
Moral	4.24	.529	4.31	.504	4.50	.346	4.18	.528	2.58	.028
Social	4.173	.581	4.273	.553	4.50	.408	4.25	.707	2.05	.073
Behavior	4.170	.557	4.229	.581	4.40	.490	4.475	.623	.956	.468

Table 5: Teacher characteristics – perceived, comparison by age group

An interesting finding in this study is the fact that there was no difference between students with different GPAs (Grade Point Average), indicating that students across the academic spectrum felt the same way about what makes a good teacher.

Discussion and conclusion

In this study of Thai university students, participants' attitudes to their teachers are based on personal attributes rather than professional knowledge or ability. What they want most from their teachers is someone who treats them with kindness and generosity. While professional knowledge and good teaching techniques are important (fourth and fifth), teachers who are outgoing and interact well with students (behaviours), are approachable (moral) and have strong communication skills (social) are perceived as better teachers. Students value attributes such as just and reasonable behaviour, consideration, confidentiality and a passion for teaching above professional knowledge and teaching ability and the use of different teaching techniques.

The results of this study indicate that students respond to the personal relationship that exists as part of the teacher-learner dynamic between students and teachers and provides an interesting insight into the teacher attributes students value the most. Research by Pallinia and Baiocob (2015) found that the influence of attachment experiences on the teacher-student relationship is very important. Research by Mikulincer and Shaver (2012) found that adults who had had early avoidance attachment experiences more easily dismissed or doubted others' attitudes, and adults who had had experiences of overprotection were more frequently vigilant towards others' attitudes, while adults secure in their attachment experiences responded more positively to help requests. In order to develop the teacher-learner dynamic teachers cannot ignore the influence of the teacher's role in developing their relationship (own attachment experiences) with students, because this has been shown to have a significant effect on student satisfaction and attitudes to learning.

Scherer's (2009) research had similar results to this study. He found that teachers who help or are perceived to be open to helping students (approachable) are more likely to have students who will improve their achievement. Scherer found that the top five student preferences that characterized a good teacher were approachability, the teacher was kind and generous, just and reasonable, consistently tried to improve their teaching and treated everyone equally. Alrubail (2016) also found that the intelligence or professional knowledge of a teacher does not automatically make them a great teacher, and concluded that a great teacher should be much more than just credentials, experience and intelligence. While it could be argued that cultural differences may be an influence on how students react and engage with different teachers, the fact that the results in this research are similar to other studies indicates that the student experience and how students feel about teachers is not dissimilar across educational levels and organizations worldwide.

Teaching is a very difficult profession because it is more than delivering content in an environment where traditionally, the emphasis has been on a strict behavioral code of objectivity and neutrality between the teacher and the student, and the completion of set tasks. Education in the twenty-first century has moved beyond the lecture-style presentation of content and students want and expect their teachers to be empathic and attentive to students' needs in both face-to-face and virtual teaching-learning environments. Student perceptions of their teachers are important as this can affect student engagement and success, particularly at university level where the students are adult learners. Students remember good teachers and the learning experiences

provided by them. For universities where staff are often experts in their field, but not necessarily teachers, this research indicates that there is more to teaching than just the delivery of content or using lots of technology during class. It is the personal relationship that is part of the teacher-learner dynamic that is highly valued by students. Teachers who establish close relationships with their students are more likely to graduate students who are satisfied with their university experiences, return to the university and participate in higher degree education, and become empathic citizens.



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The Design of An Ecosystem-Education Board Game Integrating Role-Play and Peer-Learning Mechanism and Its Evaluation of Learning Effectiveness and Flow

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Abstract

The teaching activities in ecosystem education are now more interactive in addition to the traditional classroom lectures, films, or field trips. In particular, game-based learning helps learners' motivation and the opportunities for peer learning. Board games that do not need electricity and focus on players' interactions are now widely used in many teaching practices in Taiwan. Based on cognitive learning theories and collaborative learning theories, the present study designed My country, My Animal, a board game that integrated role plays and peer learning mechanism, to enhance learners' understanding of the habitats of Formosan Black Bears and the related environmental issues. In this game, the learners played specific roles to rescue the bears by exploring forest geography, analyzing and managing the events in the cards, and collecting appropriate tool cards for peer discussions and solving the game tasks. Fifty-seven junior high school students in Taiwan participated in this empirical study, investigating the learners' learning effectiveness and their flow state in the game. The results showed that the learners' learning effectiveness related to the ecosystem knowledge of Formosan Black Bears was enhanced at a significant level as well as their high flow evaluated by the flow scale. These findings indicated that this board game helped improve motivation and learning efficacy to some extent. Moreover, no significant difference between genders was found in terms of their flow and learning effectiveness, which suggested that this game was suitable for both the male and female students. These findings were discussed with implications according to game-based learning and ecosystem education issues.

Keywords: Ecosystem education, flow experience, game-based learning, learning effectiveness, educational board game

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Introduction

Educational board game is a form of the GBL, and it becomes increasingly popular because of its being low-budget, ease of use and environment friendly. For learning process, a well-designed board game has the potential to motivate students and promote learning performance (Hou & Lin., 2015; Hou & Liu, 2015). For social emotional learning, board game can improve players' interpersonal intelligence such as communicative and interactive skill (Takaoka, Shimokawa, & Okamoto, 2012).

The teaching activities in ecosystem education are now more interactive in addition to the traditional classroom lectures, films, or field trips. In particular, game-based learning helps learners' motivation and the opportunities for peer learning. Board games that do not need electricity and focus on players' interactions are now widely used in many teaching practices in Taiwan. Based on cognitive learning theories and collaborative learning theories, the present study designed My country, My Animal, a board game that integrated role plays and peer learning mechanism, to enhance learners' understanding of the habitats of Formosan Black Bears and the related environmental issues.

Formosan black bear is the representative of Taiwan's animal and a subspecies of the Asiatic black bear. However, because of severe exploitation and habitat degradation in recent decades, populations of wild Formosan black bears have been declining. "My country, My Animal" is a role-playing educational board game, and it is a work of industry-university cooperative project between NTUST MEG research group (<http://www.ntustmeg.net/>) and Taiwan Black Bear Conservation Association. This board game was designed according to Formosan black bear four dimensions of educational program (ecological role, threat, humanity, and conservation), cognitive theories, scaffolding strategies, and social interaction theories.

During the game playing, each player will play a character (researcher, research assistant, conservation volunteer, and aborigine) to explore the Formosan black bear's life world, initiate an event script and according to the task of script to act. In this process, players will control the game role; discuss the task with other players to finish the task in the limited round. (As shown in Figure 1) This game start with the simple intuitive explores and places the plates, and each plate has its name for player to explore and pick-up the article which related to Formosan's life. After any two key event plates were explored, the script task will be appeared. Through explore and place plates, there may have a different landscapes and game tasks in different game round.



Figure 1 Students explored, placed the plates, and discussed the solution of the task.

Method

The participants for this study were 57 students (including 39 males and 18 females) from 7th and 8th grade classes in one high school in Taoyuan city, Taiwan. All participants had not played this board game before. The research design included a pretest of Formosan black bear knowledge before the students played the game and a posttest immediately following game playing. 4 participants play together, and they were given 20 minutes to accomplish the game task. After the game play, they completed a flow scale for games. The Flow Scale for Games was developed by Kiili (2006), which divided flow state into nine sub-dimensions. The questionnaire was a five-point Likert type scale in which numbers from five to one were assigned to responses that ranged from agree to disagree, respectively. The Cronbach's α value for the scale was 0.96.

Results And Discussions

Using paired *t*-test to determine if the use of board game would improve the ecology knowledge of students. Table 1 shows the board game has a positive effect on students' Formosan black bear knowledge obtained.

Table 1. Paired t-test of Pretest and Posttest

	Pretest (n=57)		Posttest (n=57)		t	p
	M	SD	M	SD		
Pretest-Posttest	40.67	9.96	48.04	13.06	-5.05***	.000

*** $p < .01$

The average and the standard deviation of participants' perceived game scores are illustrated in Table 2. These results showed that game usefulness and ease of use were generally well perceived by students.

Table 2. Perceived learning process scores of the participants

TAM	M	SD
Perceived Usefulness	3.89	1.02
Perceived Ease of Use	3.80	1.06
TAM All	3.85	0.98

To evaluate students' level of engagement, the students demonstrated flow scores higher than three (median of a five-point Likert-type scale) across all dimensions. (As shown in Table 3)

Table 3. The mean and standard deviation of flow state scores

Flow Dimensions	M	SD
Flow Antecedents	4.11	0.76
Challenge	4.20	0.92
Goal	4.32	0.84
Feedback	4.17	0.90
Control	4.18	0.88
Playability	3.70	0.94
Indicators of Flow Experience	4.13	0.80
Concentration	4.24	0.89
Time distortion	4.29	0.96
Autotelic experience	4.27	0.91
Loss of self-consciousness	3.70	1.13
Flow All	4.14	0.76

Conclusions

The present study designed My country, My Animal, a board game that integrated role plays and peer learning mechanism, to enhance learners' understanding of the habitats of Formosan Black Bears and the related environmental issues. The results showed that the learners' learning effectiveness related to the ecosystem knowledge of Formosan Black Bears was enhanced at a significant level as well as their high flow evaluated by the flow scale. These findings indicated that this board game helped improve motivation and learning efficacy to some extent. Moreover, no significant difference between genders was found in terms of their flow and learning effectiveness, which suggested that this game was suitable for both the male and female students..

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High Scope Project Evaluation—The Impact of Congruency between Preferred and Actual Learning Environments on Tenth Graders' Science Literacy

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Abstract

This study explored how the congruency between preferred and actual learning environment (PLE & ALE) impacted on students' scientific literacy in the innovative Sci-Tech Mind and Humane Heart (STMHH) curricula as part of the High Scope Project sponsored by the National Science Council of Taiwan. A pre-/post-treatment experiment was conducted with 34 tenth graders. We divided the students into two groups of "preferred alignment with actual learning environment" (PAA) and "preferred discordant with actual learning environment" (PDA) according to their scores from the PLE and ALE questionnaires. The results of this study revealed that most of the students in this study preferred learning in a classroom environment where student-centered and teacher-centered instructional approaches coexisted. Furthermore, the ANCOVA analysis showed that students in the PAA group had better learning performance over those in the PDA group with marginal statistical significance.

Keywords: learning environment, scientific literacy

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Introduction

One important goal of science education is the enhancement of learners' scientific literacy, including students' science conceptual understanding, science procedural skills, and attitude toward science (*American Association for the Advancement of Science*, 1993). Research has recommended various teaching strategies and models for the promotion of science literacy. The perspectives of constructivism on learning and teaching, although with criticisms (e.g., Osborne, 1996), have been highlighted by science educators and researchers due to its profound influences in contemporary science education (Staver, 1998). From the perspective of constructivism, an individual learner's cognitive structure regarding a specific topic must be actively constructed through as a meaningful process rather than being directly transmitted from the teachers. Based upon the assertions of constructivism, many teaching methods and strategies, such as learning cycle (Karplus, 1997), inquiry approaches, and problem based learning (Barrows, 1980), have been widely demonstrated to be effective in promoting students' learning. Constructivist student-centered approaches are therefore increasingly recognized as having positive impact on cognitive learning and affective development (Esiobu & Soyibo, 1995). In Taiwan, educators have also advocated the implementation of student-centered strategies in science education at primary and secondary levels since 1990's (MOE, 1998; MOE, 2001).

Although constructivist teaching strategies have gained increasing recognition and are recommended by educators and researchers, the debate between teacher-centered and student-centered remains (Chall, 2000; Authors, 2006). Empirical studies of student perception on learning environments showed that students did not always embrace the constructivist student-centered approaches as the educators promoted. Rodrigues (2004) found that students from Western cultures accepted learning as a self-exploring process while Asian students expected to have direct guidance from teachers. Furthermore, authors (2006) have stated that most students in Taiwan seemed to prefer the mixed use of student-centered and teacher-centered approach in earth science classroom with a small number of students seemed to prefer a teacher-centered environment. We therefore hypothesize that students in Taiwan prefer learning in a mixed environment of student-centered and teacher-centered learning model. If this hypothesis is true, the development of appropriate teaching strategies for promoting students' science literacy in Taiwan would need to be re-formatted from the fully student-centered or constructivist-oriented approaches.

The purpose of this study was to evaluate the Taiwanese 10th graders' preferences of learning environment, and to examine the possible impacts of students' perceptions of preferred/actual learning environments on students' science literacy in an innovative Sci-Tech Mind and Humane Heart (STMHH) curriculum as part the National Science Council sponsored High Scope Project. The project aims to enrich high school students' humanistic perspectives and scientific literacy, including students' science subject knowledge, attitude toward science, and their understanding of the nature of science through integrated natural science and social science courses. As part of the STMHH project, this study investigated students' preferred and actual learning environment perceptions in the STMHH courses. We also examined the impact of congruency between preferred and actual learning environment perceptions on students' learning outcomes and science literacy. Three research questions were encompassed in this study: (1) what are the tenth grade students' learning

environment preferences? (2) to what extent do the tenth grade students perceive the designed learning environment as student-centered or teacher-centered? (3) what effects will the designed learning environments have on students' learning outcomes in terms of cognitive achievement and science literacy.

Method

A total of 34 tenth grade students participated in this study. The STMHH curriculum was implemented in the fall semester starting from September 2008 till January 2009. The Preferred learning environment instrument (PLEI) and actual learning environment instrument (ALEI) were designed to quantitatively measure students' preferred and actual perception of learning environments respectively with focus on student-centered and teacher-centered dimensions. The students' responses in PLEI and ALEI were scored in 5-point Likert's scale. The PLEI and the ALEI were revised from the validated Earth Science Classroom Learning Environment Instrument (ESCLEI) (Authors, 2004). We divided students into two groups of "preferred alignment with actual learning environment" (PAA) and "preferred discordant with actual learning environment" (PDA) according to their PLEI and ALEI scores.

To measure student learning outcomes in terms of STMHH achievement, student attitudes toward the subject matter, and students' understanding of nature of science, we constructed and developed the Science Conception Test (SCT), and employed the Attitude toward Science Inventory (ASI) and the Understanding of Nature of Science Instrument (UNOSI) (Lin, 1996). All instruments have been verified to be with validity and reliability.

Based on the assumption that the preferred and actual congruence would affect students' learning outcomes (Fraser & Fisher, 1983), it was hypothesized that students' learning achievement and their attitudes toward science would be enhanced when they actually perceived the learning activities were congruent with their preferences. A univariate analysis of covariance (ANCOVA) was conducted to analyze how the students' learning achievement, understanding of nature of science, and attitude in the two groups were affected by the designed learning activities.

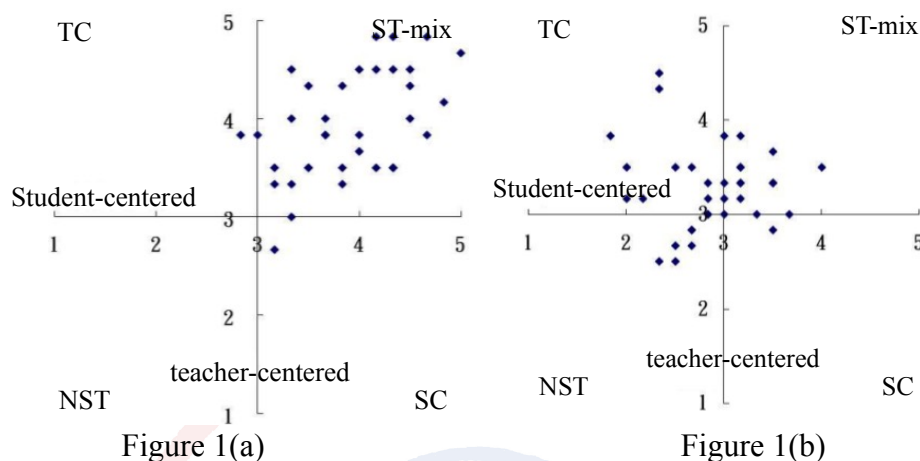
To meet contemporary calls for improvement in the interpretation and reporting of quantitative research in education (Thompson, 1996), this study reports practical significance (effect magnitudes) along with each statistical significance test. The effect size index f was used, since it is more appropriate for the analysis of variance or covariance (Cohen, 1988). According to Cohen's rough characterization (1988, pp. 284–288), $f = 0.1$ is deemed to be a small effect size, $f = 0.25$ a medium effect size, and $f = 0.4$ a large effect size.

Result and discussion

Student perception on preferred and actual learning environment

The mean scores of student responses in the student-centered and teacher-centered subscales were transformed into the format of (X, Y). For example, the upper right quadrant in Figure 1 represents that students prefer (or perceived) both the student-centered and teacher-centered learning environment, labeled as ST. The

upper-left quadrant represents that students prefer (or perceived) the teacher-centered learning environment (TC). The lower-right quadrant represents that students prefer (or perceived) the student-centered learning environment (SC), and the lower left quadrant represents that students prefer (or perceived) neither the student-centered nor the teacher-centered learning environment (NST).



As Figure 1(a) shows, in the pre-treatment survey, most of the students preferred the combined student-centered and teacher-centered (ST-mix) learning environment. In terms of actual learning experience, as indicated in Figure 1 (b), the students reported that the classes they used to attend tended to be teacher-centered learning environment.

This finding of this study echoes the previous studies that Taiwanese students tend to prefer a mixed model of student-centered and teacher-centered learning environment (Authors, 2006; Authors, 2004). This phenomenon may arise from students' cultural backgrounds. Tsai (2004) indicated that Taiwanese high school students' conceptions of science learning are associated with the society's learning-for-test culture, where preparing for tests is an educational goal (Authors, 2008). As a result, students regard teachers as an authoritative knowledge provider. Therefore, Taiwanese students may desire a student-centered learning environment whereas also seek for systemic guidance from the teacher. Thus, when developing teaching strategies and learning environment in Taiwan, teachers need to take into account of this phenomenon.

Students' learning preference congruence and their learning outcomes

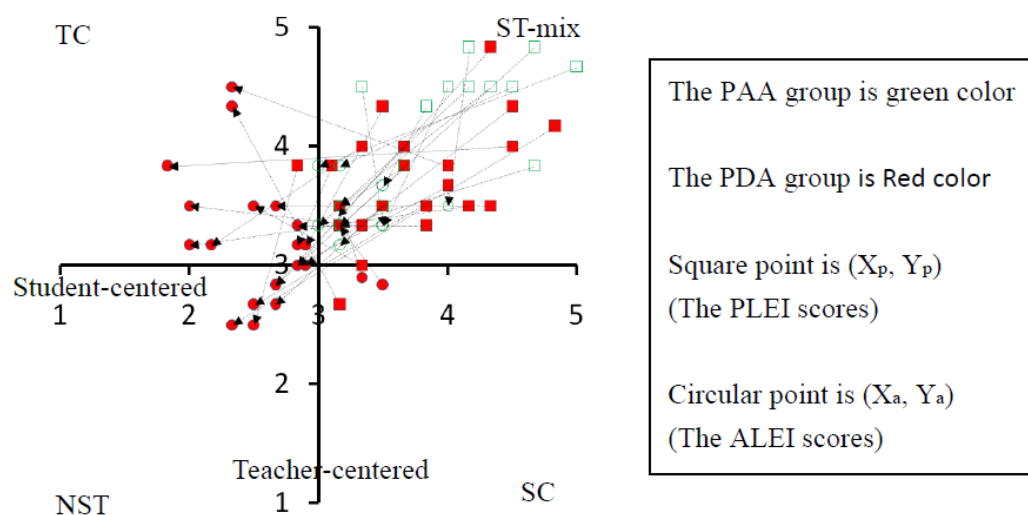


Figure 2: PAA group and PDA group

The mean PLEI scores of student responses in the student-centered and teacher-centered subscales were transformed into the format of (X_p, Y_p) , and the mean ALEI scores of student responses in the student-centered and teacher-centered subscales were transformed into the format of (X_a, Y_a) . As shown in Figure 2, 12 students with their (X_p, Y_p) and (X_a, Y_a) in the same quadrant were assigned to the PAA group and 22 students with their (X_p, Y_p) and (X_a, Y_a) in different quadrants were assigned to the PDA group. As shown in Table 1, it was found that there was a marginally significant difference between the PAA and PDA groups in terms of their performance (UNOSI, $F(1, 32) = 2.93, p = 0.10, f = 0.31$). Furthermore, it was found that the performance of PAA group on SCT was higher than the PDA group with approaching large effect size ($f = 0.3$).

Dependent Variables	group	Adjusted post-test scores	<i>F</i>	<i>p</i>	Effect size (<i>f</i>)
		Mean (SD)			
SCT	PAA	60.4 (10.6)	1.69	0.2	0.3
	PDA	55.4 (10.5)			
ASI	PAA	2.53 (0.26)	0.28	0.6	0.1
	PDA	2.58 (0.26)			
UNOSI	PAA	3.09(0.27)	2.93	0.10	0.31
	PDA	2.93(0.27)			

Table 1. ANCOVA analysis

This finding revealed that students' scientific knowledge and understanding of the nature of science were better enhanced (with large effect size) when the learning activities are congruent with their learning preference. Previous studies have shown that students had better learning performance when the actual and preferred learning environments were more closely matched (Fraser & Fisher, 1983).

It should be noted that although the result was marginally statistically significant, a practical significance regarding the difference between the two groups via the ANCOVA analysis has been observed as approaching a large effect size. However, it is quite possible to observe a statistical significance with a large sample size (Cohen, 1988) for the results of this study. This result of approaching large effect size may

signify the possibility of finding statistical significance with a larger sample size in future studies.

The findings of this study suggest that design of instruction at secondary school level for the improvement of student science literacy should consider the preferred/perceived learning environment. That is, to decrease the discrepancy between preferred and actual learning environments might help students improve their performance in science learning.



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Lecturers' Competencies in Higher Education in Indonesia to Support the Quality of Graduates (An Educational Policy Analysis)

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The Asian Conference on Education 2016
Official Conference Proceedings

Abstract

The purpose of this study is to analyze the implementation of lecturers' competencies based on the Indonesian Higher Education Policies. Many studies have shown that lecturer's competencies are significant to prepare the quality of graduates entering the workplace. Lack of lecturers' competencies will affect the quality of graduates to enter the workplace. As a result, graduates will have difficulties to get jobs in the workplace. Currently, there are more than 3500 tertiary education institutions in Indonesia with around 250 thousand lecturers. The Indonesian Law of Teachers and Lecturers Competence and Act No. 14 of 2005 and Indonesian National Standard of Higher Education 2014 declared that a lecturer is an educator who has to fulfil four kinds of competencies, which are; a. Pedagogic competence, b. Personal competence, c. Social competence, d. Professional competence. These competencies will influence lecturers' performance in the classroom. Consequently, it has an impact on the quality of graduates. Nevertheless, there are still implementation difficulties. Presently, many lecturers are still applying the conventional teaching patterns, with low research publications and little professional developments to support their competencies. As a recommendation, the role of a government supported institution is significant to improve lecturers' competencies by accommodating new patterns of teaching methods, such as; SCL (Student-centered Learning), PBL (Project-based Learning), research approach, professional developments, and current skills that support graduates to be workplace ready.

Keywords: Higher education, graduates, lecturers' competencies

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1. Introduction

The universities are seen by stakeholders as they have a responsibility to provide graduates with necessary work skills to contribute to the achievement of their goals and to provide a satisfactory learning experience for graduates (Richardson and Kabanoff 2003 p.1). Thus, the importance of quality education to develop human potential and improving the quality of human resources, especially universities graduates should be of paramount concern to the agency in preparing them to face the globalized world (Suharsaputra, 2015).

Human resource management in higher education institutions is required particular intervention to support their lecturers, as an organization of higher education must be managed with modern techniques such as resource management concerning the efficiency, effectiveness, productivity and accountability that is generic and applicable to all types of organizations. In the decree of Teachers and Lecturers, Act No.14 Year 2005 mentions that lecturers are professional educators and scientists with the main task of transforming, developing and disseminating science, technology, and the arts through education, research, and community service. It is due to run educational programs are both needed lecturers who also have good quality performances. By having good lecturers in the high quality of their performance, universities can formulate the programs and the most modern curriculum to ensure the graduates qualified by the development of the global market.

These conditions issues are still quite diverse, but the main problems lie in this conditions lead to the weak role of the faculty in improving their lecturers' competence, especially regarding competency in carrying out their duties in the learning process (DGHE, 2014). It is certainly going to produce a low quality of graduates to enter the workplace, in connection with the above. Thus, this article will discuss the competence of lecturers concerning the policy on high competence of lecturers in universities with the formulation of the problem as follows:

1. What are the concepts of lecturers' competencies policies at universities in Indonesia in improving the quality of its graduates?
2. How will the function of lecturers' competencies be implemented in higher education in Indonesia?
3. How do the lecturers' competencies in higher education in Indonesia can improve the quality of its graduates?

2. Literature review

2.1 Definition of Lecturer

Generally, a "lecturer" is classified as an "educator", According to the Indonesia National Education System Decree Act No. 20 Year 2003, in Article 39 (2), which states

"Teachers are professionals in charge of planning and implementing the learning process, assessing the results of learning, coaching and training, and conduct research and dedication to the community, in particular for Educators on College". In Article 40 (2) added that educators should:

- a) Creating an atmosphere of meaningful education, fun, creative, dynamic and dialogical;
- b) Professionally committed to improving the quality of Critical; and
- c) Exemplify and maintain the good name of the institution, profession, and position by the trust given to him.

The world's universities, Indonesian higher education institutions' performance are based on Three Pillars of Tertiary Education (Tri Darma Perguruan Tinggi), namely: teaching, research and community service. Regarding applying Three Pillar of Tertiary Education, lecturers have the following roles;

- a) Facilitators and resource persons in the classroom learning
- b) Researchers and experts in scholarship each for the development of science, technology, culture and art.
- c) Servant / public servant with the effort / how to apply his expertise to the wider community.

Referring to Law No. 14 Year 2005 on Teachers and Lecturers Article 69 states that the coaching and professional development of lecturers include competence, namely:

1. Pedagogic competence or the ability to manage learning lecturer.
2. Competence personality or standards authority, maturity and exemplary.
3. Professional competence or the ability of faculty to master content and teaching methods.
4. Social competence or the ability of faculty to perform social communication, both with students and the wider community.

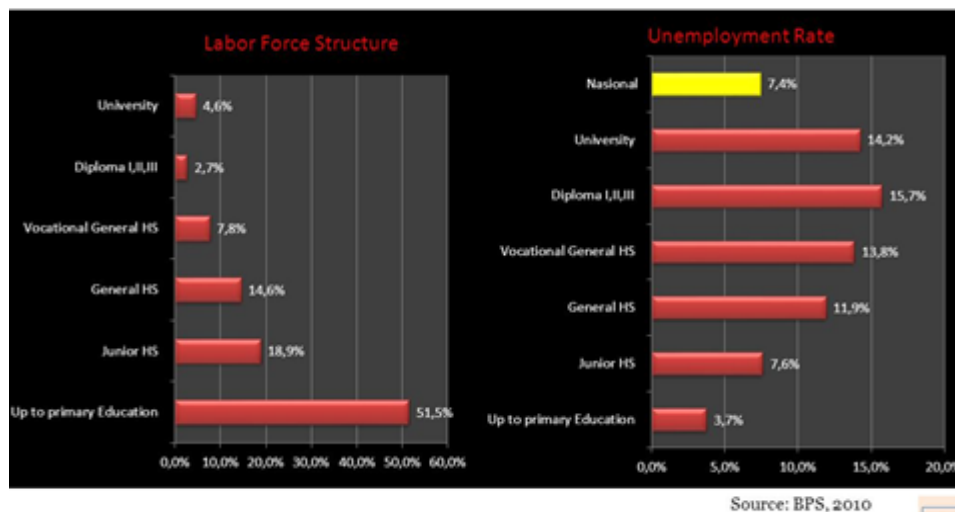
It is also reinforced by the Regulation of the National Education Ministerial Republic of Indonesia Act No. 16 Year 2007 on Standards of Academic Qualifications and Competencies of Teachers and Lecturers. The four competencies above are integrated into the performance of teachers and lecturers. These competencies are a set of knowledge, skills and behaviors that must be owned, lived and ruled by the faculty in carrying out their professional duties. To the competence of lecturers in improving the quality of learning that will create high-quality graduates is very significant. The

Indonesian government through The Decree of Ministerial of Education Act No. 045 / U / 2002 requires a change towards the goal of higher education:

- (a) Provides graduates who can compete in a global world;
- (b) Variations in the orientation of higher education which is no longer just to produce intelligent human knowledge, but also the ability to apply their knowledge of life in the community (competent and relevant), more cultured; and
- (c) Also the changing needs of the world of work, which is manifested in changes in recruitment needs.

Labor force structured and unemployment in Indonesia, which based on Indonesian Central of Statistics Bureau states that many unemployment in Indonesia is graduates who cannot enter in the workplace due to their qualities in competing for their knowledge.

Labor Force Stucture & Unemployment in Indonesia



Also, to support higher education institutions, Indonesia Qualifications Framework (IQF) which was released in 2012 is a framework that balances the competence level of qualification and integrates education and vocational training fields as well. IQF prepared based on specific needs and goals unique to Indonesia's education system and career system working the world. IQF also designed in accordance systems developed in other countries, such as Europe, Australia, Scotland, Hong Kong and New Zealand.

Indonesian Qualification Framework (2012) is a framework of qualifications balance with integrity level of competence and vocational education and training. To face the competition in the world globally in the 21st century, IQF (2016) was also designed to

spread the University graduates into the 21st century. It focuses on: (1) skills, (2) Expertise (3) knowledge, (4) and harmony with the flexibility to achieve Achievement learning (learning outcomes). Indonesian resources required in a global world are those who have the competence hardworking, creative thinking, ability For productive, make decisions, problem-solving, learning, collaboration and self-management (Marzano, et al. (2006). As a consequently, to support graduates to be ready in the workplace, all lecturers in Indonesian universities should comprehend the Indonesian Qualification Framework.

IQF Description Based On Learning Outcomes



2.2 Definition of competence

Finch & Crunkilton, (1992: 220) stated that "Competencies are reviewed those tasks, skills, attitudes, values, and appreciation that are deemed critical to successful employment". This statement implies that the competencies include jobs, skills, attitudes, values, appreciation is granted to successful living/income live. It can be interpreted that the competence is a combination of knowledge, skills, and application of the duties in the job. The word "Competence" according to Mulyana (2003) states that the competence is defined as the knowledge, skills, abilities controlled by a person who has been a part of him so that he can do the behaviors of cognitive, affective and psychomotor as well as possible.

According to Indonesian Manpower Law, Act No. 13 Year 2003, article 1 (10), competence is the ability of each that include many aspects of knowledge, skills and attitudes that work by the standards set. Johar (2006: 130) concluded that the competence of teachers and lecturers associated with the authority to carry out its duties. In this case, the lecturers use fields of study as a learning material that acts as an educational tool, and pedagogical competence related to the functioning of lecturers in observing the behaviour of learners learning (university students). Long, et al. (2014) says that "A competency has

its relations with all the three fields underperformance can be assessed. Reviews these areas are knowledge, skills and attitudes ". The competence is associated with three skill performance can be evaluated, namely knowledge, skills, and behaviours. Therefore, in line with the policy of Indonesia Higher Education, the competence of lecturers should be integrated overall competence above.

1) Pedagogical Competence

Pedagogical Competence includes understanding the teacher to the learner, the design and implementation of learning, evaluation of learning outcomes, and the development of learners to actualize various potentials in the classroom.

2). Personality Competence

Personal competence is a personal capacity reflects the personality of a solid, stable, mature, wise and dignified, become role models for students, and noble.

3). Social competence

Social competence is the ability of teachers to communicate and interact effectively with students, fellow teachers, staff, parents/guardians of students and the surrounding community.

4).Professional competence

Professional competence is the mastery of learning materials widely and deeply by the scientific discipline, which includes mastery and scientific overshadow the substance of the material, as well as mastery of the structure and methodology of science. Research and support related to scientific, lecturer certification as well as higher functional position.

3. Discussion

3. 1. What are the concepts of lecturers' competencies policies at universities in Indonesia in improving the quality of its graduates?

Basic policy implementation faculty development through high standards of competence of lecturers in Indonesia higher education institution.

A. The Decree of Indonesian Higher Education Law No. 12 of 2012

In Law, No. 12 of 2012 on Higher Education mentions that lecturers are professional educators and scientists with the main task of transforming, developing and disseminating science, technology and the arts through education, research and community service.

B. The Decree of Teachers and Lecturers Law No. 14 in 2005 and The Ministerial Education and Culture Act No. 16 Year 2007

In Act No. 14 Year 2005 section 69 states that the competence of lecturers includes: 1. Competence Pedagogy (2). Competence Personality (3) Social Competence and (4) professional competence. Later in the Ministerial of Education and Culture ct No. 16 Year 2007, the description of the competence of lecturers, i.e., pedagogical, personal competence, professional competence and social competence. Overall it is an integral element of which is the standard that must be met by lecturers participating companies to educate the nation's children qualified.

C. Long-Term Strategy for Indonesian Higher Education Higher Education 2010-2014

In the Indonesia Higher Education Strategic Plan 2010 - 2014 (Director General of Higher Education, 2010) it was stated that one of the strategies to achieve Indonesian higher education quality and the outcomes is the relevancy of the university with the needs of the industrial world. This relevance can be interpreted as the university having a sensitivity level to highlight what kinds of workplace competencies required by stakeholders. Other strategies contained in the Higher Education Strategic Plan 2010 - 2014 is to encourage the process of education and learning environment more conducive to educate graduates who are intelligent, skilled and characters.

3. 2. How will the function of lecturers' competencies be implemented in higher education in Indonesia?

The lecturer is an important component of higher education; faculty will determine the quality of education and quality of graduates. If the high-quality faculty, the quality of higher education will also be of great value, and vice versa. It should any program launched by the institution which is if not supported by lecturers of high quality, it will produce graduates who cannot meet the demand of stakeholders. Lecturers who have good and high-quality performance, institution programs can formulate a program or curriculum-the-art to ensure the achievement and the quality of its graduates.

Indonesia, according to Suharto (2011) says that the development of quality lecturers have also been known since the 70's. Some colleges had organised activities included in the category of coaching lecturers, such as upgrading special new lecturers (Character) by the Higher Education for senior lecturers who did not have a background of undergraduate in education. Even universities were particularly had set up a training centre faculty staff and conducting coaching lecturer in regional and international level, many of the constraints faced by, among others, socialisation upgrading this program. It had many obstacles because many lecturers that were spread throughout the territory of Indonesia, many lecturers did not have this training.

Currently, the Indonesian Directorate General Higher Education continues to pursue upgrading or workshops for young teachers who are not education by program Applied

Approach (AA). It is intended for new lecturers to be able to meet the standards of competence of lecturers contained in the Ministerial Education and Culture Act No. 16, 2007. This government policy through the Higher Education program is very effective to improve the competence of lecturers will be standard. Also, the universities through this policy should accommodate the lecturers to be more encouraged to improve the competence of their teachers who will ultimately produce graduates who are qualified and ready to welcome the work market.

3. 3. How do the lecturers' competencies in higher education in Indonesia can improve the quality of its graduates?

Implementation of the policy of high competence of lecturers in universities that have been applied by the Ministerial Education and Culture Act No. 16, 2007 namely:

a. Pedagogical competence

Pedagogical Competence is a critical element in the tertiary education level, and faculty as an actor that transferring knowledge to students must be competent qualified with teaching methods that can be easily understood by students. Conditions lecturer in the current pedagogical competence based on the observation team of Higher Education Curriculum (2014) states that the most important issue in the success of the college curriculum is a lack of role within the competence of the teaching faculty, which includes the following:

- a. Lack of understanding of the essence of the curriculum.
- b. Lack of preparation of lecturers in teaching and learning.
- c. The vagueness formulation of learning outcomes.
- d. The vagueness strategy and learning methods.
- e. Unclear whether the strategies and methods of learning are the right choices to achieve learning outcomes.

Firdaus, et al (2007) in ASAIHL Conference 2007 also explained that the general weaknesses in the quality of graduates Indonesia is that they are less competent in; (1) Information and Technology, (2) communication skills, (3) Leadership, Creativity (4) and (5) The ability to solve problems (problem solving skills). Therefore, to overcome this issue pedagogic competence, appropriate learning pattern system is more directed to the Student-Centered Learning (SCL). SCL is a model of appropriate learning in the learning process today (Eden, 2007). It is because the learning process has characteristics that are interactive, holistic, integrated, scientifically effective, collaborative and student-centered. Brush (n.d) explains that "Student-centered learning has promoted as an alternative to traditional teacher-centered learning for many years". The pattern of learning that focuses on the student (SCL) is an alternative that allows the changes to old

patterns of learning that focuses on teacher TCL). Vygotsky (1978) said that learning is a social process in which students learn to develop an understanding through interaction with troubleshooting. Students will get to develop their ability in facing a real problem (real-life tasks) active communication, and collaboration.

Lecturers, in this case, must develop competencies in learning SCL,, this is expressed by Glasglow (1997) in Brush (nd), in study of SCL, a lecturer responsible for facilitating and explores the potential of students in activities that are expected to explore the ability of students as active learners (active learning). To achieve this success, Overby (2011) says "to attain successful teacher curriculum ... Also, has to the make changes in how they teach students ... the trick to having successful learning environment, the teacher should making learning and environment more comfortable". Based on this statement, the lecturers are expected to make changes to create a learning atmosphere that is comfortable for students.

In selecting learning activities to achieve learning outcomes as expected, let professors choose activities that fit within it. Project-based learning is one of the activities suggested in higher education learning. Learning patterns like this has been done at the Nanyang University of Singapore develops through the Center for Teaching and Learning has learning patterns with settlement problems creatively in which students are exposed to real problems in the field of science which are then given the task to be solved as part of learning.

As for the other activities by the recommendation of the Indonesia Directorate General of Higher Education which supports the achievement of the learning process with SCL pattern is a small group discussion, simulations, discovery learning, self-directed learning, project-based learning and problem-based learning. While the mastery of information and technology is necessary for applying these activities, to the lecturer must continue to learn about information technology that is relevant to their teaching methods.

From the explanation of the problem above and alternative solutions that could be implemented in order to improve pedagogical competence of lecturers, lecturers as the key players in this regard should change the pattern of teaching, but for the lecturers will not be maximized if the lack of support of the institution, especially in terms of support will be a learning environment, facilities and the necessary means.

b. Personal competence

The second competency listed in Teachers and lecturers Law No. 14 Year 2005 is the personal competence. Personal competence is the ability of personality steady, stable, mature, wise and thoughtful, dignified, noble, become role models for students and the community, to evaluate its performance and to develop self-sustainable manners. All of these are to be developed competencies in optimizing competence lecturer personality. In a study of universities in Pakistan which was examining the relationship between the competence of lecturers and student satisfaction, in general, the results of the research shows a very low level of student satisfaction concerning the dissatisfaction of students

with learning management as in motivating the students at universities. Implementation of higher education policies at this time, in the development of this competence, the institution has a role in analyzing the weaknesses of what should be improved by their lecturers. Many institutions should have noticed this by providing their teachers seminar or workshop related to the development of the performance of their lecturers.

c. Social Competence

Social competence is the ability of educators as part of the community:

- Communicate orally and in writing.
- To interact actively with students, fellow teachers, staff, parents or guardians of students.
- To socialize and indulge together with the community.
- To associate politely with the surrounding community.
- To be active in organizing community service as one of the Three Pillars of Indonesian Tertiary Education.

In the Three Pillars of Indonesian Tertiary Education (Tri Darma Perguruan Tinggi), three components must be met by the lecturers, namely teaching, research and community service. This final element is community service components that are important in sharpening a professor of social competence. Through community service, a lecturer position itself as part of the society through knowledge and thoughts are with something useful for society. Programs of awareness through community service will hone a professor of social competence. At this time, the duty of every lecturer by the regulations Higher Education to develop social competence through community service was absolute. In per cent increase in functional lecturer, these components must be met as part of the Three Pillars of Tertiary Education (Tri Darma Perguruan Tinggi) as well as evidence of social competence of lecturers will be its performance.

d. Professional Competence

In Teachers and Lecturers Law No., 14 Year 2005 states that the last competencies that must be met by the lecturers are professional competence. Suib (n.d) states that professional competence is a professional lecturer who is a benchmark in the academic quality assurance. Professional competence is the competence of lecturers should be developed related to the professionalism of the lecturers as educators. To that end, the current implementation of these competencies is the classification of lecturers as educators with a minimum academic qualification is Master Degrees and Doctoral Degrees, the lecturer certification by Lecturer's certification, functional positions that must be fulfilled by the lecturers. The professional competence is the ability of a lecturer in the mastery of science broadly and deeply integrated into Three Pillars of Tertiary Education (Tri Darma Perguruan Tinggi). The following data Higher Education to the highest level of education faculty:

DGHE policy in fostering the development of quality faculty is needed to improve the competence of the universities in the development of professional qualities. However, it might take some time because the number of lecturers who still have Bachelor Degrees, especially in areas outside Java island Indonesia.

To increase the professionalism of lecturers, doing research is a part lecturer duty as scientists or researchers. In the declaration DGHE will university-based research, it is essential for lecturers to continue to conduct ongoing research. Ganieva, et al. (2015) states that "teacher education competence is Considered as an integral characteristic of his professional and educational activities in Researchers', this is reinforced by the many grant competition on faculty research offered by the DGHE to develop interest lecturers regarding research. However, the implementation is still going slow. The lecturers still focus on teaching learning process. Thus this issue should be an ongoing progress for lecturers in conducting research, especially research related to quality improvement in the quality of graduates both academic and nonacademic activities. Therefore, to improve their professional competence, faculty must be consistent in what is its responsibility, for example by always doing research both individual and collaborate, following the lecturers' certification, the increase in functional positions, and following scientific forums related to the discipline of science.

4. Conclusions and recommendations.

The fourth development of lecturers' competencies by the policies which set the fourth competencies in the Teachers and Lecturers Law no. 14 The year 2005 are pedagogical, personal competence, social competence and professional competence. These are essential for lecturers as an effort to meet the competencies. Thus, the implementation of policies should be as a good guideline for faculty and institutions to applying in improving the quality of lecturers and universities.

The changes of the paradigm of learning that focuses on the teacher (Teacher-centered learning / TCL) on the learning that focuses on the student (Student-centered learning / SCL) requires awareness of lecturers in developing the expertise to be able to apply the methods of more efficient approaches to the students. Personality and social competence high priority to the stability of characters, morals and behaviour motivation and performance of lecturers to be able constantly to improve the performance and the performance and activities in the community through community service. The competence of the latter is the professional competence of a teacher must continue to be improved both through research, participation in the certification of teachers, promotion of functional, active in writing journals and scientific forums that correspond to the discipline of science.

Finally, the role of institutions are essential for the harmonious relationship between lecturers and institutions work together and support each other will reinforce efforts to increase the development lecturers' competencies as expected on these policies made above, with the result producing quality graduates.

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Educational Policy and Management in the Equitable Allocation of School Resources: Budgetary Priorities and Funding in an American High School

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Abstract

The building of a budget for an educational institution requires careful consideration of budgetary priorities and of the rationale behind the priorities. School leaders also need to define in adequate detail a realistic and effective funding formula to generate revenues for an educational institution (Antolovic, 2001). The funding formula employed by the Apollo High School in Owensboro, Kentucky allows the school to achieve clearly stated educational goals and objectives. A school budget must address adequacy and equity in school funding, and power over the budget planning process needs to be shared among key stakeholders. Data collected regularly from a wide range of sources can improve the quality and consistency of budgetary decisions (Chabotar, 1995). Alternative funding structures can help to raise funds for items and resources beyond the scope of the budget that can contribute to educational outcomes. Research into best practices in the reallocation of school resources and adjustments in the structure of schools can form the basis of the decision-making process when planning budgetary priorities (Odden & Picus, 2004). Various legal and regulatory considerations influence budget planning and educational funding. A school budget must meet the needs of all stakeholders by effectively allocating resources to enhance learning outcomes (Crawford, 2004). The funding formula employed by the Apollo High School helps the school to effectively allocate resources to provide sufficient levels of funding for program priorities. The school budget allocates resources in a logical, consistent, and equitable manner to meet the needs of all stakeholders.

Keywords: educational policy, management, budgetary priorities, funding formula, power

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Introduction

The building of a budget for an educational institution requires careful consideration of budgetary priorities and of the rationale behind the priorities. School leaders also need to define in adequate detail a realistic and effective funding formula to generate revenues for an educational institution (Antolovic, 2001). The funding formula employed by the Apollo High School in Owensboro, Kentucky allows the school to achieve clearly stated educational goals and objectives. A school budget must address adequacy and equity in school funding, and power over the budget planning process needs to be shared among key stakeholders. Data collected regularly from a wide range of sources can improve the quality and consistency of budgetary decisions (Chabotar, 1995). Alternative funding structures can help to raise funds for items and resources beyond the scope of the budget that can contribute to educational outcomes. Research into best practices in the reallocation of school resources and adjustments in the structure of schools can form the basis of the decision-making process when planning budgetary priorities (Odden & Picus, 2004). Various legal and regulatory considerations influence budget planning and educational funding.

Generating Revenue to Finance the Funding Formula of an Educational Institution

The funding formula employed at Apollo High School adequately address the needs, goals, and objectives of the school, teachers, and students. The school receives funding from local, state, and federal funding sources, and the majority of the financial burden falls on the state (Kentucky Department of Education, n.d.b). School leaders can increase the number of community projects, fundraising events, and partnerships between the school and the local business community to increase revenues and contribute more to the local community. Donations and regular fundraising events provide alternative sources of revenue at Apollo High School (2008b). State funding alone is not sufficient to adequately address all of the funding priorities of the school.

Apollo High School benefits from a foundation program that ensures a minimum amount of spending in each school district in Kentucky and a guaranteed tax base program that results in equalized spending for amounts greater than the foundation base (Odden & Picus, 2004). The funding formula is based on a combination of local tax revenues, state support, and adjusted using a pupil weighting system which takes into consideration the needs of students in special education programs. The current funding formula, involving a number of sources and three levels of government, effectively meets the needs and requirements of Apollo High School. The educational funding system in Kentucky combines equity with flexibility to meet local needs and requirements. Annual overlay provisions, set minimum and maximum spending amounts in school budgets, may help schools that experience a drop in enrollment but may lead to inequities in some areas (Toutkoushian & Michael, 2008). Kentucky employs various types of overlay provisions in the budgets of school districts.

Schools in Kentucky are eligible for some categorical aid from the state for students who possess special gifts or talents, for early education programs, vocational training, textbooks, and teacher training, including internships (Odden & Picus, 2004).

However, categorical aid may not be sufficient to cover all the costs of eligible programs. Apollo High School must also rely on funding from a variety of sources.

Addressing Adequacy and Equity in the School Budget

A school budget must meet the needs of all stakeholders by effectively allocating resources to enhance learning outcomes (Crawford, 2004). The adequacy and equity of the state funding that Apollo High School currently receives has been influenced by a landmark court ruling that has led to significant educational funding reforms. The Kentucky state Supreme Court ruled in 1989 that every student required an equal opportunity to achieve official learning standards (Rayburn, 2004). The court ruling associated learning standards with levels of school funding. Kentucky initiated the first comprehensive, statewide effort in the United States to reform the academic and financial structure of the state educational system (Rayburn, 2004). The Supreme Court of Kentucky ruled in the 1989 case of *Rose v. Council for Better Education* that the existing system of finance of the state schools was unconstitutional because the system did not provide equal levels of revenue to schools (Odden & Picus, 2004). Equal school funding may be necessary to achieve equal student learning outcomes. Court rulings are often necessary to cause changes in school funding policies (Wong, 2013). Administrative and political factors may present significant barriers to the improvement of adequacy and equity in school budgets.

The Kentucky state legislature responded to the court ruling by attempting to improve the uniformity and equality of educational funding in all school districts. The urgent need for improved equity in the basic finance of schools in Kentucky, following the landmark ruling of the state Supreme Court in 1989, led to the implementation of the innovative “Support Education Excellence in Kentucky (SEEK)” funding formula, and the formula was successful in substantially improving school equity without major changes to the formula over a period of ten years (Odden & Picus, 2004). The new funding formula permitted a certain degree of local control. Some local control of school funding may improve cost effectiveness and equity (Levacic, 1993). In some schools, the salaries of teachers were raised. Increasing the salaries of teachers may help to attract and retain highly qualified teachers and to significantly improve the quality of instruction and student learning outcomes (Jackson, Rucker & Persico, 2015).

Adequacy and equity could be further improved at Apollo High School and other schools in Kentucky by incorporating the Odden Model for adequacy into the existing SEEK formula. The Odden Model for adequacy provides a useful indication of the degree to which spending levels are adequate for school districts (Odden & Picus, 2004). The Odden-Picus Adequacy Index (OPAI) is not sensitive to inflation and employs statistics to measure adequacy in educational funding and uses a formula to calculate adequacy that is based on a selected adequate level of spending rather than on the median (Odden & Picus, 2004). The OPAI provides useful information to school leaders to help improve the efficient distribution of resources in school districts.

The Data-Driven Decision-Making Process in School Funding

The fiscal reporting system of Apollo High School in Owensboro Kentucky addresses

the need for accountability to stakeholders and serves to enhance school performance and student achievement. The reporting system collects a wide range of specific and general school data through the implementation of national and state accountability testing and assessment systems. The data collected regularly at the school through state and federal accountability tests can serve to improve the quality and consistency of budgetary decisions. The need for schools to consistently demonstrate improvements in levels of student achievement forms the basis of reforms in the educational system of the state of Kentucky (Kentucky Department of Education, 2007a). Apollo High School's accountability testing and assessment system plays a key role in the successful operation of the school and in the equitable and efficient distribution of school resources to meet the needs of stakeholders. Focus group interviews of teachers and questionnaires can also serve to improve the understanding of specific budget needs (Ho & Chen, 2011). Data can be collected in various forms from a variety of sources. Effective data collection is critical for understanding the link between resource allocation and actual student learning outcomes (Roza, 2009). More research is required to understand in detail the ways in which school resource allocation impacts student learning outcomes.

Resource allocation data on schools may focus on expenditures and staffing in specific programs, content areas, and educational strategies such as tutoring and professional development (Roza, 2009). Fiscal reporting at Apollo High School and other schools in Kentucky primarily addresses student achievement in the content areas of mathematics and language arts and collects a variety of school statistics such as graduation and dropout rates. Carefully structured, frequent testing measures student progress and provides the data required to review and adjust school programs, curricula, and programs (Kentucky Department of Education, 2007a). The fiscal reporting system enhances the ongoing data-driven, decision-making process of the school. Data from a wide range of sources help stakeholders to examine complex issues from multiple perspectives. An efficient and accurate fiscal reporting system may improve the operation of the school and the levels of student achievement.

The Kentucky Department of Education (2007a) asserts, "The Commonwealth Accountability Testing System (CATS) generates a wealth of data . . . [to] inform the public on the status of educational reform at all levels" (para. 3). Manuals and guides containing technical data analysis and future projections of school data are available to the public (Kentucky Department of Education, 2007a). The same regularly updated information in the form of graphs and charts is available online for free download in different formats. The state of Kentucky's CATS fiscal reporting system focuses on expenditures and staffing in core content areas and complements the National Assessment of Educational Progress (NAEP) system which focuses on student achievement in reading and writing.

The No Child Left Behind Act (NCLB) has required state participation in the National Assessment of Educational Progress (NAEP) evaluation program to be eligible for Title I funds since 2003 (Kentucky Department of Education, 2007b). The Kentucky Department of Education (2007b) states, "Under NCLB, states applying for Title I funds must indicate that they plan to participate in NAEP" (para. 7). The NAEP scores in Kentucky rose in 2007 and are close to the national average in reading and mathematics in the fourth and eighth grades (Kentucky Department of Education,

2007b). Fiscal reporting that provides high levels of accountability is necessary for Kentucky schools to receive various forms of state and federal funding.

The Kentucky CATS system collects a wide range of school statistics in addition to average test scores in different core subject areas, including attendance and dropout rates. The CATS system classifies schools in Kentucky into different categories based on student achievement levels and school performance statistics such as the dropout rate (Kentucky Department of Education, 2007c). A regularly updated CATS information package is available on the Kentucky Department of Education website, providing detailed school information for the public. Data from a wide range of sources help to substantiate the need for budgetary decisions. Academic and financial data collection systems are valuable tools and sources of information for school administrators, but such data systems may be too expensive for some schools to design and implement (Roza & Swartz, 2007). Schools which cannot afford data collection systems need to find alternative sources of funding to implement such data systems in order to benefit from long-term savings.

Alternative Funding Structures for Schools

A variety of methods can be employed to raise funds for new items and resources which may be beyond the scope of the budget but which are justified in terms of the potential contribution to educational outcomes. School districts can purchase large capital outlay items such as new buildings, buses and different types of school equipment in various ways. School facilities can impact student achievement on many different levels. Environmentally friendly buildings can save energy and create comfortable working environments that may increase productivity and improve learning (Tarricone, 1996). New designs for schools and classrooms can help to create more effective learning communities that meet the needs of each individual learner. Schools frequently need sufficient funds to build or renovate facilities and to purchase new equipment.

Corporate sponsorship, large settlements resulting from court findings against major companies, grants, and foundations can provide the funding necessary for major purchases and expenses in schools (Levacic, 1993). Corporate sponsorship may sometimes cause controversy. Some teachers and community members may, for example, question the wisdom of allowing a major fast-food restaurant chain to sponsor gym equipment and sporting events. School foundations may help schools to create a steady source of income from interest or investments. Schools may often be expected to spend all of the money they receive, but a foundation allows schools to keep relatively large amounts of funds available for unexpected expenses or long-term projects involving costs that may be difficult to accurately predict. General obligation bond issues can be proposed by school boards and voted on by local taxpayers (Odden & Picus, 2004). Good relations between the school and the local community may help in obtaining support for bond issues. Effective school leaders can use a variety of creative ways to obtain the funding necessary to purchase large capital outlay items for a school. Creative approaches to saving money include adjusting school hours according to the season to save energy costs, shorter school years, and larger school buses. School facilities can also be rented out for various uses to serve the local community (Stover, 2003). The local community and businesses can be a valuable source of funding and of ideas for reducing various costs. The decentralization of

budget decision-making in school districts may provide some benefits, but such benefits do not occur automatically. For example, charter schools in the United States are not necessarily more cost-efficient than traditional public schools (Arsen & Ni, 2012). Assumptions regarding funding needs and decision-making processes need to be carefully reviewed and evaluated on a regular basis.

Reconciling Economic Limitations and Student Needs

The choices made in the budget of Apollo High School meet the needs of the stakeholders by helping to enhance the learning outcomes of the students. The mission statement of Apollo High School, listing the main priorities, reads, “We are committed to preparing all students . . . We shall accomplish this through academic excellence in all subject areas, while fostering positive growth in social/emotional behaviors and attitudes” (Apollo High School, 2008a, para. 5). Data collected from the best practices of schools indicates that a preschool program and classes of approximately fifteen students until grade three with one teacher and an assistant, and about twenty-five students per class in other grades are a wise educational investment in the future of the students (Odden & Picus, 2004). Data-driven decision-making processes are essential in school budget planning and in the planning of an effective curriculum.

Apollo High School may benefit from best school practices based on empirical research. Qualified tutors for students with special needs and outreach programs, in-school teacher training with approximately \$2000 per teacher for professional development, and \$125,000 for educational technology purchases in schools with a student population of five hundred may have a significant positive impact on overall learning outcomes (Odden & Picus, 2004). Best practices provide a solid, basic framework for school resource allocation decisions. Continuous investment in information technology needs to be integrated into the school budget and curriculum planning (Antolovic, 2001). The ongoing implementation of educational technology in schools in Kentucky is a high budgetary priority (Kentucky Department of Education, n.d.a). Investments in technology and related training are wise investments in the future of schools, teachers, and students.

Investing substantially in the lower grades, tutoring programs, and professional development is essential for the improvement of future, overall learning outcomes (Stover, 2003). However, no method of choosing budgetary priorities and of deciding on an adequate level of spending will be perfect in all circumstances. The budgetary needs of schools in the same education system may vary greatly and change rapidly, but investment in early education programs seems to be the most cost-effective strategy for improving overall, long-term levels of academic achievement in an education system (Levin, 2008). Educational budget planning and funding is subject to constantly changing factors, but a base spending level per child needs to be maintained, and special budgetary considerations must be made for low-income students, students with disabilities, and students learning English as a second language to promote the overall quality and average learning outcomes of schools, education systems, and societies. Some schools, as a result of restructuring and changing the allocation of existing resources, are able to significantly improve the efficiency of programs and the overall learning outcomes (Rayburn, 2004). Establishing budgetary priorities at Apollo High School is useful for improving the

use of existing resources to meet student needs.

Public schools require adequate financial support directly from the state (Crawford, 2004). Schools must carefully balance stated educational goals with spending priorities. A policy statement at the top of the homepage of Apollo High School reads, "The primary vision of Apollo is to promote a sense of community among its students that will encourage, guide and support each student in his or her quest for success" (Apollo High School, 2008b, para. 1). Apollo High School strives to meet the needs of each individual student through the equitable distribution of school resources.

Educational technology plays an important role in all school districts in Kentucky and at Apollo High School. Educational reforms have led to improved standards, larger school revenues, fairer distribution of revenues, new curricula and creative approaches (Rayburn, 2004). Equitable funding systems connected to specific educational goals may be the key to the improvement of the efficiency of schools and the overall quality of learning.

The Kentucky Department of Education (n.d.a) issued a five year "Education Technology Master Plan" in 2007 to guide the funding and implementation of technology in schools to improve the performance of all students (para. 3). Apollo High School shares the same goals and standards as the state master plan. The Kentucky Department of Education (n.d.a) lists the goals in the comprehensive educational, technological, and financial plan of the state of Kentucky as: (1) High student performance, (2) A strong and supportive environment in each school for every child, and (3) High-quality teaching and administration (para. 4). The Kentucky Department of Education (n.d.b) states, "The priorities and initiatives contained in the Master Plan reflect an aggressive approach to enhance teaching and learning through the creative application of technology" (para. 3). The effective implementation and adequate funding of educational technology plays a central role in the curriculum of Apollo High School. The Kentucky Department of Education (n.d.b) asserts that the state master plan acknowledges the importance of "substantial new funds" from the state to support major investments in education technology, including new high-speed information networks (para. 4). School funding, educational technology and practices are closely coordinated at the state, district, and school level in Kentucky.

The members of a school budget committee need to be representative of the main stakeholders (Chabotar, 1995). Legal and ethical guidelines help to ensure that school resources are not wasted or used only for the benefit of a small but influential minority of school and community members. Accountability requires high ethical and legal standards and can be improved by the involvement of all stakeholders to some degree in an open and transparent fiscal reporting process. The fiscal reporting system of the school effectively communicates accountability to the stakeholders of the educational institution, generating a wealth of meaningful data to communicate clearly to a broad audience.

Conclusion

The funding formula used by the Apollo High School in Owensboro, Kentucky helps the school to effectively allocate resources to provide sufficient levels of funding for program priorities. The budget addresses the issues of adequacy and equity in

educational funding. Budgetary decisions are based on accurate data collected regularly from several different sources. Alternative funding structures serve to provide funds for necessary items and resources beyond the scope of the budget. Best practices in the reallocation of resources can significantly improve the decision-making process when building a budget (Roza & Swartz, 2007). The school budget allocates resources to improve learning outcomes and to meet the needs of the stakeholders.



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***Learning Critical Incidents and Socio-Cultural Differences: An Interactive Tool
of Reorienting Students in a Multicultural Classroom***

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Abstract

This conceptual paper attempted to describe the significance of developing awareness and knowing socio-cultural differences and critical incidents in social educational participation experiences. Observe the nature of each country; diet, customs, the age of the patient; speech; manners; fashion; even his silence...One has to study all these signs and analyze what they portend (Hippocrates, 5th century BCE). It further aimed to (1) identify which culture is more dominant in a small- multicultural school, (2) demonstrate the types of cultural traits that affect intercultural communication of students, and (3) describe the common differences wherein critical incidents of communication can be present to improve one's understanding of these differences. The study subscribed to Cultural Criticality Approach, Pike's (1954) Emic and Etic Approach, Dynamic Process Approach and Kolb's (1984) Experiential Learning Theory, the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience.

Keywords: intercultural educational communication, learning diversity, cultural differences in classroom,

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Introduction

Critical incidents, culture and education defined

Oftentimes, critical incidents are tools for increasing our awareness and understanding of human attitudes, expectations, behaviours, and interactions. They are intended to engage participants at a meaningful, personal level as they examine attitudes and behaviours that might be critical to their effectiveness in the roles they are already performing or preparing for (in the workplace, in educational settings, and in society at large). Triandis first used critical incidents to develop cross-cultural competence in the 1960s in his work with cultural assimilators (see also Triandis, 1994).

Further, education is the process of cultivating human potential in a person so that s/he can contribute to his/her personal growth as well as those of others. Quality education, according to UNESCO-APNIEVE (Asia-Pacific Network for International Education and Values Education) nurtures competence in learning, doing, relating – a way of being – in a Globalized Community as well as values based on the dignity of the person and integrity of creation (UNESCO, 2005). Individuals possess and represent culture in different ways according to their personal experiences in the course of their lives. People learn culture throughout their lives so it can be changed corresponding with each person's experience. Culture can be represented slightly different from person to person. However, in order for a certain way of life to be culture, it should be shared by a group of people in community (Jandt, 2004). Helman (2001) reaffirms that:

Culture is a set of guidelines (both explicit and implicit) that individuals inherit as members of a particular society, and that tell them how to view the world, how to experience it emotionally, and how to behave in it in relation to other people, to supernatural forces or gods, and to the natural environment (p.2).

It is important to note that the words 'cross-cultural' and 'intercultural' are frequently used interchangeably in our daily lives (Gudykunst & Kim, 1997); however, they are identified in a dissimilar way in this study. Cross-cultural communication employs 'etic' view of the other cultures. In contrast, intercultural communication with people from different cultures by engaging communication with people from different cultures. 'Emic' view comes from the participants who are in the communication with different cultures. In order to identify the difference between cross-cultural communication and intercultural communication, the term cross-cultural communication is defined. Gudykunst and Kim (1997) assure us that "the term cross-cultural traditionally implies a comparison of some phenomenon across culture. Cross-cultural communication involves 'etic' view of different cultures. One of the most cited cross-cultural communication research studies was carried out by Hofstede in 1980 (Hofstede, 2001). In Hofstede's study, he compares cultures that affect communication between people whose ethnic backgrounds are different. His study helps people to understand what might affect communication between people from different cultures (Min, 2008).

In another study, according to Hall (1976), he suggested the categorisation of cultures into high context versus low context cultures in order to understand their basic differences in communication style and cultural issues. Communication style refers to ways of expressing oneself, to communication patterns that are understood to be 'typical' of, say, Finns or Japanese people. Cultural issues mean certain societal factors, such as the country's status, history, religion and traditions. Cultural issues also include Hofstede's (2008) individualism vs. collectivism dimension. According to Lewis (2005, 70, 89), linear-active cultures are calm, factual and decisive planners. They are task-oriented, highly organised and prefer doing one thing at a time. They stick to facts and figures that they have obtained from reliable sources. They prefer straightforward, direct discussion, and they talk and listen in equal proportions.

Moreover, reactivities are courteous, outwardly amiable, accommodating, compromising and good listeners. Their cultures are called 'listening cultures'. Reactives prefer to listen first, in order to establish both their own and the other's position. They often seem slow to react after a presentation or speech, and when they speak up, it is without clear signs of confrontation (Lewis, 2005, 70–71). Multi-actives are warm, emotional, loquacious and impulsive. They like to do many things at a time. They often talk in a roundabout, animated way. It is typical of them to speak and listen at the same time, leading to repeated interruptions. They are uncomfortable with silence and seldom experience it between other multi-actives (Lewis, 2005, 70, 89).

Diversity in Philippine education

In an undated study on Filipino culture by Florido, the Filipino character is actually a little bit of all the cultures put together. The *bayanihan* or spirit of kinship and camaraderie that Filipinos are famous for is said to be taken from Malay forefathers. The close family relations are said to have been inherited from the Chinese. The piousness comes from the Spaniards who introduced Christianity in the 16th century. Hospitality is a common denominator in the Filipino character and this is what distinguishes the Filipino. Filipinos are probably one of the few, if not the only, English-proficient Oriental people today. Pilipino is the official national language, with English considered as the country's unofficial one.

The Filipinos are divided geographically and culturally into regions, and each regional group is recognizable by distinct traits and dialects - the sturdy and frugal *Ilocanos* of the north, the industrious *Tagalogs* of the central plains, the carefree *Visayans* from the central islands, and the colorful tribesmen and religious Moslems of Mindanao. Tribal communities can be found scattered across the archipelago. The Philippines has more than 111 dialects spoken, owing to the subdivisions of these basic regional and cultural groups. The country is marked by a true blend of cultures; truly in the Philippines, East meets West. The background of the people is Indonesian and Malay. There are Chinese and Spanish elements as well. The history of American rule and contact with merchants and traders culminated in a unique blend of East and West, both in the appearance and culture of the Filipinos, or people of the Philippines (Florido, n.d.).

In addition, this setting demonstrates the challenges of educating students of diverse cultures and sub-cultures with English as the medium of education. It is also important to note that the Philippines as a country is somehow unique in Asia because, together with a new country, Timor Leste, it is the only country where the great majority of people are baptized Christians. While the earliest peoples of the islands were considerably influenced by the cultures of Hinduized empires of Southeast Asia and their Muslim successor states, the Spanish influence is quite evident in its socio-religious practices. The Anglo-Saxon influence through English as the medium of instruction, has become the 'vehicle of ideas distinctive of the culture of English speaking peoples, the most important of which are those ideas of democratic government which have been incorporated in the Constitution of the Republic' (De la Costa, 1961).

Lastly, as mentioned by Ramirez (2006) the mission of education today is to promote life in its wholeness, to bring into communion and solidarity in the light of authentic globalization the finest expressions of diverse cultures, expressions of human dignity through creativity in work, loving relationships, and challenges amidst suffering brought about by severe objective limitations of the environment. This objective appears 'unrealistic' at this time in the context of a dominant economic system that has introduced a materialistic, consumerist and mechanical worldview. Unknowingly or even unconsciously this worldview gets embedded in the school system even as it teaches religion. Courses and programs are judged of quality and of excellence when they could be 'internationally competitive'.

In sum, diversity of Philippine education is not new and unusual since the country has been a melting pot of various European, American, and Asian cultures. However, with the fast upgrading of social media and other communications technology like applications in smartphone, learning cultures especially south-east Asian, will be more interactive and can happen anytime and anywhere. It is very likely that the Association of South East Asian Nations (ASEAN) integration is a major driving force in instituting culture studies in most Philippine schools.

Problem

The main objective of this study is to investigate power of intercultural educational communication of Dr. Carlos S. Lanting College students. Specifically this research paper sought to answer the following question, what attitude and perception do respondents have toward a culture more dominant in a small-multicultural classroom? Also how do types of cultural traits affect or impact intercultural communication of student-respondents, and how significant is the difference between the assessments of socio-cultural differences and critical incidents of communication of respondents, in improving one's understanding of these differences?

Methodology

To fully develop great results from cross-sectional approach, the researcher used mixed quantitative methodologies in analyzing information from student-respondents. Exploring how different cultures take in intercultural educational communication competence and its relationship with multicultural classroom performance included data collection in Dr. Carlos S. Lanting College, the researcher selected student-respondents based on their cultural background, their academic performance, and their willingness to voluntarily participate in this research study.

The main participants of this study are 122 students from different regional backgrounds in the Philippines using various local languages and with a few foreign students. The student-respondents are divided into two groups of population samples, 61 from the College of Nursing and the other group is from Business Department.

The researcher asked student-respondents to describe an inter-culturally and communicatively competent student, to rank the dimensions of intercultural educational communication competence based on their understanding of this theoretical construct, and to describe their views about the correlation between intercultural communication competence and performance in multicultural classroom.

The logo for the International Association of Frontiers Researchers (iafor) is centered on the page. It features the word "iafor" in a light blue, lowercase, sans-serif font. The text is surrounded by two large, thin, curved lines that form a partial circle, one in a light blue color and the other in a light red color.

Results and Discussion

Below Table 1 presents the Frequency and Percentage Distribution of the Profile of the Respondents.

Table 1. Frequency and Percentage Distribution of the Profile of the Respondents

Profile of the Respondents	Frequency	Percentage
Classification		
Nursing	61	50.0
Business	61	50.0
Total	122	100.0
Gender		
Male	35	28.7
Female	85	69.7
No Answer	2	1.6
Total	122	100.0
Age		
16-20 years old	86	70.5
21-25 years old	17	13.9
26-30 years old	8	6.6
31-35 years old	4	3.3
36-40 years old	2	1.6
41 years old and above	4	3.3
No Answer	1	.8
Total	122	100.0
Civil Status		
Single	118	96.7
Married	4	3.3
Total	122	100.0
Nationality		
Filipino	116	95.1
Rwandese	2	1.6
Indonesian	1	.8
No Answer	3	2.5
Total	122	100.0
Religion		
Roman Catholic	86	70.5
Islam/Muslim	4	3.3
Born Again	6	4.9
Christian	11	9.0
Baptist	1	.8
Iglesia ni Cristo	2	1.6
Iglesia ng Diyos	4	3.3
Mormon	1	.8
No Answer	7	5.7
Total	122	100.0

Table 1 presents the distribution of respondents according to their profile variables. The study have an equal number of nursing (n=61; 50%) and business (n=61, 50%) respondents – a ratio of 1:1. In terms of gender, 69.7% (n=85) of the respondents are female and 28.7% (n=35) are male. However, 1.6% (n=2) did not declare their gender in the survey questionnaire. In terms of age, majority or 70.5% (n=86) of the respondents age from 16 to 20 years old. It was followed by those who are 21 to 25 years old with 13.9% (n=17) of the total respondents, those who are 26 to 30 years old with 6.6% (n=8), those who are 31 to 35 years old, and 41 years old and above each with 3.3% (n=4) and lastly, those who are 36 to 40 years old with 1.6% (n=2). Here is the distribution of respondents according to the languages they speak. With regards to the respondents L1, 77.0% (n=94) speak Tagalog as their L1. Only 1.6% (n=2) speak English. 16.4% (n=20) of the respondents speak other languages/dialects which include Kinyarwanda, *Bisaya*, *Tausug*, *Antiqueno*, *Pangasinense*, *Chavacano*, *Iloko*, *Bicolano*, *Pangalatok*, and *Waray*. On the other hand, in terms of their L2, 60.7% (n=74) speak the English language followed by 11.5% (n=14) of the respondents who speak Tagalog as L2. Moreover, 13.1% (n=16) of the respondents speak other languages/dialects which include French, *Ilonggo*, Muslim, *Maranao*, *Batangueno*, *Iloko*, *Hiligaynon*, *Bisaya*, *Ibaloi* and *Bicolano*. Lastly, in terms of their L3, 63.1% (n=77) may have no third language spoken or did not declare their L3. However, 16.4% (n=20) speak English as their L3, 6.6% (n=8) speak Tagalog as L3 and 13.9% (n=17) speak other languages/dialects.

Problem: What attitude and perception do respondents have toward a culture more dominant in a small-multicultural classroom?

Below Table 2 presents the mean, median and standard deviation of the attitude and perception of respondents toward a culture more dominant in a small-multicultural classroom.

Table 2. Mean, Median and Standard Deviation of the Attitude and Perception of Respondents Toward a Culture More Dominant in a Small-Multicultural Classroom

Attitude and Perception Towards a Culture MoreN			Valid	Missing	Mean	Median	SD	QD
Dominant in a Small-Multicultural Classroom								
I believe American culture is a dominant culture in our classroom.			118	4	2.62	3.00	.73	Agree
Chinese culture is more dominant in our class.			97	25	1.88	2.00	.68	Disagree
Filipino culture is the most dominant culture in our class.			118	4	3.60	4.00	.63	Strongly Agree
Cultural differences can be a barrier of communication in our classroom.			110	12	2.45	2.00	.77	Disagree
Age is an issue in our class.*			119	3	1.39	1.00	.60	Strongly Disagree
Race is important consideration in learning to acculturate.			115	7	2.70	3.00	.80	Agree
Gender plays a big role in understanding cultures in our class.			111	11	2.69	3.00	.88	Agree
I respect other cultures.			122	0	3.76	4.00	.52	Strongly Agree
It is hard for me to learn or adjust to the customs of other cultures in my class.			114	8	2.39	2.00	.82	Disagree
Learning sociocultural differences should be taken seriously in our class to avoid conflicts and misunderstanding.			121	1	3.29	3.00	.75	Agree
Overall Mean			122	0	2.70	2.70	.33	Agree (Positive)
Legend:			1.00 – 1.49 Strongly Disagree (Very Negative)			2.50 – 3.49 Agree (Positive)		
Positive)			1.50 – 2.49 Disagree (Negative)			3.50 – 4.00 Strongly Agree (Very		
			*statement was reversed					

Table 2 shows the descriptive result in determining the student-respondents attitude and perception towards a culture more dominant in a small multicultural classroom. It can be seen that student-respondents strongly agree that they respect other cultures ($\bar{x}=3.76$, $s=.52$) and that Filipino culture is the most dominant culture in their class ($\bar{x}=3.60$, $s=.63$).

On the other hand, the student-respondents agreed on the following statements: that they believe American culture is a more dominant culture in their classroom ($\bar{x}=2.62$, $s=.73$), that race is an important consideration in learning to acculturate ($\bar{x}=2.70$, $s=.80$), and that learning sociocultural differences should be taken seriously in their class to avoid conflicts and misunderstanding ($\bar{x}=3.29$, $s=.75$). The student-respondents disagreed that

Chinese culture is more dominant in their class ($\bar{x}=1.88$, $s=.68$), that cultural differences is a barrier in communication in their classroom ($\bar{x}=2.45$, $s=.77$) and that it is hard for them to learn or adjust to the customs of other cultures in their class ($\bar{x}=2.39$, $s=.82$).

Furthermore, the student-respondents strongly disagreed that age is an issue in their class ($\bar{x}=1.39$, $s=.60$). Generally, the student-respondents have a mean of 2.70 ($s=.33$) with a qualitative description of agree; consequently, in general, they have a positive attitude and perception about a more dominant culture in a small multicultural classroom. It is clear that the components of Cultural Criticality Approach play a vital function in associating the interpersonal communicative behavior of respondents who try to understand a dominant culture by understanding the barriers and accepting differences.

Another factor that has to be looked into in studying the potential part of Cultural Criticality Approach in understanding culture is gender as a potential barrier especially in oriental cultural background of respondents. But most of the respondents agreed that respecting differences in age, gender, and race advocates understanding cultures. This assumption is not just supported by the theory of Cultural Criticality but by the findings collected as well.

Problem: How do types of cultural traits affect or impact intercultural communication of student-respondents?

Below Table 3 presents the mean, median and standard deviation of the types of cultural traits that affect intercultural communication of student-respondents.

Table 3. Mean, Median and Standard Deviation of the Types of Cultural Traits that Affect Intercultural Communication of Student-Respondents

Types of Cultural Traits that AffectN		Valid Missing		Mean	Median	SD	QD
Intercultural Communication of Student-Respondents							
I think Filipinos in my class are influenced by American culture and customs.	118	4		2.68	3.00	.76	Agree
I am a big influence on my classmates' manners.	117	5		2.59	3.00	.81	Agree
Filipino is somehow the most dominant culture in class, it is American because Filipinos are accustomed.*	113	9		2.59	3.00	.74	Agree
My speech changed when I started talking to my foreign classmate.	119	3		2.93	3.00	.66	Agree
I see culture as multilayered and complex.	115	7		2.99	3.00	.68	Agree
Culture is dynamic and ever changing that is why it can have impact in communication.	121	1		2.98	3.00	.68	Agree
My class has an exchange of cultural traits.	119	3		2.82	3.00	.61	Agree
Customs and fashion are the most influential cultural traits that affect student's own acceptance of culture.	117	5		3.09	3.00	.69	Agree
I understand other cultures to be significant.	119	3		3.18	3.00	.57	Agree
I understand why my classmates behave the way they do because it is part of their norms.	119	3		3.24	3.00	.59	Agree
Overall Mean	122	0		2.91	2.90	.30	Agree (Positive)
Legend:	1.00 – 1.49 Strongly Disagree (Very Negative)			2.50 – 3.49 Agree (Positive)			
	1.50 – 2.49 Disagree (Negative)			3.50 – 4.00 Strongly Agree (Very Positive)			

*statement was reversed

Table 3 presents the descriptive of the different types of cultural traits that affect intercultural communication of the student-respondents. It can be seen from the table that the respondents agreed on all the statements: that they think Filipinos in their class are influenced by American culture and customs ($\bar{x}=2.68$, $s=.76$), that they are a big influence on their classmates' manners ($\bar{x}=2.59$, $s=.81$), that the Filipino is somehow the most dominant culture in class and it is not American ($\bar{x}=2.59$, $s=.74$) and that they understand why their classmates behave the way they do because it is a part of their norms. In addition to that, the student-respondents had the highest agreement on the last statement of where they understand the behavior of their classmates including the reason.

It is important to note, from the data above that the variables and components of Emic and Etic Theory are significant in the respondents' way of interpreting dominant cultural traits. And with this in application, Dynamic Process Approach gives learners perspective in seeing another culture as multilayers, complex and changing. **Problem:** How significant is the difference between the assessments of socio-cultural differences and critical incidents of communication of respondents, in improving one's understanding of these differences?

Below Table 4 presents the mean, median and standard deviation of the sociocultural differences of student-respondents.

Table 4. Mean, Median and Standard Deviation of the Sociocultural Differences of Student-Respondents

Sociocultural Differences of Student-Respondents,N wherein Critical Incidents can be Present		Valid	Missing	Mean	Median	SD	QD
Books are not sufficient in learning customs and traditions.	115	7	2.50	2.00	.88	Agree	
Listening to lectures is not enough to know cultures.*	120	2	2.42	2.00	.85	Disagree	
My speech somehow changed as I learn Tagalog or Filipino in my class.	114	8	2.84	3.00	.76	Agree	
My fashion changed as I get acquainted with other Asian, Afro and American culture.	112	10	2.48	2.50	.73	Disagree	
I learned my manners from classmates who come from other cultural background.	113	9	2.65	3.00	.85	Agree	
Overall Mean	122	0	2.58	2.60	.42	Agree (Positive)	
Critical Incidents of Communication							
To experience being confronted with new and unknown situations in understanding cultural differences is not necessary.*	117	5	1.98	2.00	.60	Disagree	
To experience security in a multicultural classroom is normal.	120	2	3.04	3.00	.52	Agree	
To experience insecurity in a multicultural classroom is not normal in DCLC.	117	5	2.52	2.00	.76	Agree	
I do not experience fear and rejection in a classroom in DCLC.*	109	13	2.72	3.00	.86	Agree	
I have not experienced trust, sympathy and empathy in a diverse classroom in DCLC.	106	16	2.18	2.00	.81	Disagree	
Overall Mean	122	0	2.50	2.50	.32	Agree (Positive)	
Legend: 1.00 – 1.49 Strongly Disagree (Very Negative) 2.50 – 3.49 Agree (Positive) 1.50 – 2.49 Disagree (Negative) 3.50 – 4.00 Strongly Agree (Very Positive)							

*statement was reversed

Table 4 shows the descriptive on the assessment of socio-cultural differences and critical incidents in communication of student-respondents. Based on the results, the student-respondents agreed that books are not sufficient in learning customs and traditions (\bar{x} = 2.50, s = .88), that their speech somehow changed as they learn Tagalog or Filipino in

their class ($\bar{x}=2.84$, $s=.76$) and that they learned manners from their classmates who come from other cultural background ($\bar{x}=2.65$, $s=.85$). Meanwhile, they disagreed that listening to cultures is not enough to know cultures ($\bar{x}=2.42$, $s=.85$) and that their fashion changed as they get acquainted with other Asian, Afro and American culture ($\bar{x}=2.48$, $s=.73$).

Test of Significant Differences

Below Table 5 presents the test of significant differences on the attitude and perception of student-respondents toward a culture more dominant in a small-multicultural classroom.

Table 5. Test of Significant Differences on the Attitude and Perception of Student-Respondents Toward a Culture More Dominant in a Small-Multicultural Classroom

Profile Variable		N	Mean Rank	Nonparametric Test		Test Statistic	Asymp. (2-tailed)	Sig.
Classification	Nursing	61	61.19	Mann-Whitney U		U=1841.50		.922
	Business	61	61.81					
Gender	Male	35	61.29	Mann-Whitney U		U=1460.00		.874
	Female	85	60.18					
Age	16 – 20 years old	86	61.40	Independent Samples Kruskal-Wallis		df = 5 $\chi^2=.610$.988
	21 – 25 years old	17	61.53					
	26 – 30 years old	8	55.31					
	31 – 35 years old	4	54.25					
	36 – 40 years old	2	59.00					
	41 years old & above	4	69.38					
L1	Tagalog	94	56.73	Independent Samples Kruskal-Wallis		df=2 $\chi^2=2.669$.263
	English	2	91.75					
	Others	20	63.50					
L2	Tagalog	14	59.29	Independent Samples Kruskal-Wallis		df=2 $\chi^2=5.770$.056
	English	74	48.16					
	Others	16	66.63					
L3	Tagalog	8	25.31	Independent Samples Kruskal-Wallis		df=2 $\chi^2=.426$.808
	English	20	23.20					
	Others	17	21.68					
Nationality	Filipino	116	59.30	Mann-Whitney U		U=92.50		.166
	Others	3	87.17					

As presented in Table 5, to compare the attitude and perception of student-respondents towards a culture more dominant in a small multicultural classroom, the Mann Whitney U Test and Independent Samples Kruskal-Wallis Test were used. At 0.05 level of significance and with the mean ranks compared, the results shows that there is no significant difference on the attitude and perception of the student-respondents when grouped according to course [classification] (U=1841.50, $p=.922$), gender (U=1460.00, $p=.874$), age (df=5, $\chi^2=.610$, $p=.988$), L1 (df=2, $\chi^2=2.669$, $p=.263$), L2 (df=2, $\chi^2=5.770$, $p=.056$), L3 (df=2, $\chi^2=.426$, $p=.808$) and nationality (U=92.50, $p=.166$). Such results

then imply that these profile variables are not factors on determining students' attitude and perception with regards to a dominant culture in a multicultural classroom.

Below Table 6 shows the test of significant differences on the types of cultural traits that affect intercultural communication of student-respondents.

Table 6. Test of Significant Differences on the Types of Cultural Traits that Affect Intercultural Communication of Student-Respondents

Profile Variable		N	Mean Rank	Nonparametric Test	Test Statistic	Asymp. (2-tailed)	Sig.
Classification	Nursing	61	64.53	Mann-Whitney U	U=1675.50		
	Business	61	58.47				
Gender	Male	35	60.19	Mann-Whitney U	U=1476.50		
	Female	85	60.63				
Age	16 – 20 years old	86	60.76	Independent Samples Kruskal-Wallis	df = 5 $\chi^2=5.793$		
	21 – 25 years old	17	65.12				
	26 – 30 years old	8	65.19				
	31 – 35 years old	4	71.38				
	36 – 40 years old	2	5.50				
	41 years old & above	4	57.63				
L1	Tagalog	94	58.26	Independent Samples Kruskal-Wallis	df=2 $\chi^2=1.533$		
	English	2	87.25				
	Others	20	56.75				
L2	Tagalog	14	57.86	Independent Samples Kruskal-Wallis	df=2 $\chi^2=.700$		
	English	74	51.03				
	Others	16	54.59				
L3	Tagalog	8	20.81	Independent Samples Kruskal-Wallis	df=2 $\chi^2=.314$		
	English	20	23.88				
	Others	17	23.00				
Nationality	Filipino	116	60.47	Mann-Whitney U	U=119.00		
	Others	3	41.67				

Below Table 7 shows the test of significant differences on the sociocultural differences of student-respondents.

Table 7. Test of Significant Differences on the Sociocultural Differences of Student-Respondents

Profile Variable	N	Mean Rank	Nonparametric Test	Test Statistic	Asymp. (2-tailed)	Sig.
Classification	Nursing	61	Mann-Whitney U	U=1715.00	.453	
	Business	61				
Gender	Male	35	Mann-Whitney U	U=1364.50	.417	
	Female	85				
Age	16 – 20 years old	86	Independent Samples Kruskal-Wallis	df = 5 $\chi^2=2.058$.841	
	21 – 25 years old	17				
	26 – 30 years old	8				
	31 – 35 years old	4				
	36 – 40 years old	2				
	41 years old & above	4				
L1	Tagalog	94	Independent Samples Kruskal-Wallis	df=2 $\chi^2=.716$.699	
	English	2				
	Others	20				
L2	Tagalog	14	Independent Samples Kruskal-Wallis	df=2 $\chi^2=9.982$.007*	
	English	74				
	Others	16				
L3	Tagalog	8	Independent Samples Kruskal-Wallis	df=2 $\chi^2=.092$.955	
	English	20				
	Others	17				
Nationality	Filipino	116	Mann-Whitney U	U=54.00	.040*	
	Others	3				

*significant difference exists at 0.05 alpha level

To compare the student-respondents' assessment on socio-cultural differences in their learning environment, the Mann Whitney U Test and Independent Samples Kruskal-Wallis Test were used. As seen on Table 7, At 0.05 level of significance and with the mean ranks compared, the results shows that there is no significant difference on the attitude and perception of the student-respondents when grouped according to course [classification] (U=1715.00, p=.922), gender (U=1364.50, p=.417), age (df=5, $\chi^2=2.058$, p=.841), L1 (df=2, $\chi^2=.716$, p=.699), and L3 (df=2, $\chi^2=.092$, p=.955). Such results then imply that these profile variables are not factors on determining students' attitude and perception with regards to a dominant culture in a multicultural classroom. On the other hand, when grouped according to L2, it was found out that there exists significant difference on their assessment of socio-cultural differences (df=2, $\chi^2=9.982$, p=.007). Looking at the mean ranks, it can be concluded that student-respondents whole L3 is Tagalog has the lowest assessment of socio-cultural differences (Mean Rank=38.64), followed by the student-respondents whose L3 is English (Mean Rank=50.92) and those whose L3 are other languages/dialects (Mean Rank=71.94). Furthermore, in terms of nationality, student-respondents from other nations (Mean Rank=100.00) have

significantly higher ($p=.040$) assessment of cultural differences than the Filipinos (Mean Rank=58.97).

Below Table 8 presents the test of significant differences on the critical incidents of communication of student-respondents.

Table 8. Test of Significant Differences on the Critical Incidents of Communication of Student-Respondents

Profile Variable		N	Mean Rank	Nonparametric Test		Test Statistic	Asymp. (2-tailed)	Sig.
Classification	Nursing	61	54.68	Mann-Whitney U		U=1444.50		.031*
	Business	61	68.32					
Gender	Male	35	64.01	Mann-Whitney U		U=1364.50		.471
	Female	85	59.05					
Age	16 – 20 years old	86	57.52	Independent Samples Kruskal-Wallis		df = 5 $\chi^2=7.876$.163
	21 – 25 years old	17	76.12					
	26 – 30 years old	8	45.94					
	31 – 35 years old	4	78.63					
	36 – 40 years old	2	79.75					
	41 years old & above	4	74.63					
L1	Tagalog	94	60.09	Independent Samples Kruskal-Wallis		df=2 $\chi^2=1.214$.545
	English	2	45.50					
	Others	20	52.33					
L2	Tagalog	14	42.39	Independent Samples Kruskal-Wallis		df=2 $\chi^2=1.914$.384
	English	74	54.38					
	Others	16	52.66					
L3	Tagalog	8	17.31	Independent Samples Kruskal-Wallis		df=2 $\chi^2=2.121$.346
	English	20	23.28					
	Others	17	25.35					
Nationality	Filipino	116	59.19	Mann-Whitney U		U=80.00		.106
	Others	3	91.33					

*significant difference exists at 0.05 alpha level

Table 8 shows the test of significant differences on the critical incidents of communications of student-respondents. Using the Mann Whitney U Test, it was found out that there exists no significant difference between student-respondents when grouped according to gender ($U=1364.50$, $p=.471$) and nationality ($U=80.00$, $p=.106$), and that there exists a significant difference between nursing and business students ($U=1444.50$, $p=.031$). Moreover, using the Independent Samples Kruskal-Wallis Test, it was found out that there are no significant differences on the critical incidents of communication of the respondents when grouped according to age ($df=5$, $\chi^2=7.876$, $p=.163$), L1 ($df=2$, $\chi^2=1.214$, $p=.545$), L2 ($df=2$, $\chi^2=1.914$, $p=.384$) and L3 ($df=2$, $\chi^2=2.121$, $p=.346$). It is also important to note the respondents learn culture not merely from reading books or listening to lectures about culture but experiencing different cultures and their attributes is the best way of cultural education, this is explained by Kolb's Experiential Learning Theory.

Below Table 9 presents the test of significant difference between the assessments of socio-cultural differences and critical incidents of communication of respondents.

Table 9. Test of Significant Difference between the Assessments of Socio-cultural Differences and Critical Incidents of Communication of Respondents

			N	Mean Rank	Nonparametric Test	Z	Sig.
Critical Incidents of Communication – Socio-cultural Differences	Negative Ranks		60 ^a	56.03	Wilcoxon Signed Ranks Test	-1.670	.095
	Positive Ranks		46 ^b	50.21			
	Ties		16 ^c				
	Total		122				

a. Critical Incidents < Socio-cultural Differences

b. Critical Incidents > Socio-cultural Differences

c. Critical Incidents = Socio-cultural Differences

Table 9 shows the test of significant difference between the assessment of socio-cultural differences and critical incidents of communication of the student-respondents. Using the Wilcoxon Signed Ranks Test, there is no significant difference between the two variables ($Z=-1.670$, $p=.095$).

Conclusions and Recommendations

This research analysed the potential strengths of employing intercultural educational communication frameworks in multicultural classrooms. Based from the data, the application of four theories namely Cultural Criticality Approach, Emic and Etic Approach, Dynamic Process Approach and Experiential Learning Theory are vital in designing an eLearning and teaching module on intercultural educational communication divided into four different parts using the four theories as primary areas of study. The module is useful in addressing intercultural conflicts silently and unknowingly present in classrooms and social premises of the school campus. Unreported cases of discrimination, language rift, and religious differences shall be properly entertained and foreign students will have first-hand knowledge of identifying problems of racial bullying and hatred.

As schools have been preparing for the effects in education system of ASEAN integration, small schools can include particular provisions in the student and faculty manual certain policies on socio-cultural conflicts to protect students' individual rights, foreign or local, as they exercise their academic freedom. It cannot be greatly undermined that foreign students from the Philippines' south-east Asian neighbours will multiply as a result of ASEAN integration for work and study whys and wherefores.

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The Board Game Teaching with the Marine Science Educational Course on Students' Learning Motivation, Interest, and Achievement in Junior High School

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Abstract

Board games are innovative educational tools that may advance learning motivation, interest and enhance learning achievement. And the board-game teaching often offers a variation in the students, comparing with traditional teaching.

This study developed a Marine Science Educational Course for Junior high School Students and designed a board game combining the path of currents in the ocean and marine science concepts and emphasized on the garbage patches problems in the world as the primary educational tool in this course, which was named "M.O.S.". (Marine, Ocean, Sea)

The study used the standard experimental method on the classes, the experimental class and the control class with pre-test & post-test. The experiment class was taught by the board-game teaching while traditional teaching on the control class in this course. The study objects are the 9th students of 2 similar level classes in a junior high school in Taipei City. The experimental class contains 25 students, and the control class provides 26 students.

The purpose of this study was to advance the learning motivation, interest, achievement and further effects in marine science field of students. The expected result is that the board-game teaching has significantly positive impacts on students' motivation, interest, achievement and further effects in marine science field than the traditional teaching.

Keywords: Game-learning, board-game, marine education

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I. Introduction

1.1 General Background Information

Learning, should not be that teachers do one-way indoctrination of knowledge on students. Let students make some observation of environment by themselves, finding solutions of related environment problems, and make students meet what they need to do in actual life. If students can understand how to use the application of knowledge which they learning, they will be willing to learn and regarding as the worth doing.

Teacher's teaching method which can solve the puzzle of students, and increase students ' willingness of learning is the best method. In recent years, many teachers combine their own professional field, instead of the one-way teaching method, their teaching way with many innovation tools, and take students as the main body. Among these methods, the teaching with the table games is more and more common. According to Taiwan Grade 1-12 Curriculum Guidelines, the marine education is one of four major education issues in Taiwan. Living with the island surround with the ocean, learning basic knowledge of the ocean, training the ocean literacy in life, and the respect for natural environment with the ocean, shaping "Being close to the ocean, Loving the ocean, and knowing the ocean" of education situation, making a silent transforming influence of students in the marine literacy. Therefore, by using the board game teaching method which with the Marine Science Educational Course to enhance the students ' motivation, interest, and achievement become the primary goal of this study.

1.2 Purpose of the Study

The target of this study are ninth-grade students in the Tapei country, planning a series of marine science education courses by using the board game teaching method to investigate students ' learning motive, interest, and achievement. The purposes of this study are below:

1. Board-game teaching can enhance students ' learning motivation in marine science.
2. Board-game teaching can enhance students ' learning interest in marine science.
3. Board-game teaching can enhance student learning achievement in marine science.

II. Literature review

2.1 Definition of Board-game

This study aims to explore the influence in the board games teaching pattern with marine science of students. Parlett (1999) defines the board game, explaining the word board game: Board originally refers to "flat". In literal meaning, board game is any plane (floor, table or other flat places) to play on.

In this study, we combine the viewpoints of various scholars and the meaning of board game, and define " board game " as follows:

1. Games that can operate accessories on any plane.
2. Activity with interaction and fun, people immerse in it.
3. With the rules, goals, losers and winners.

4. Activity with cooperation and competition.
5. The kind of spontaneous activity, making people emerge intrinsic motivation and learn.

2.2 The Meaning of Marine Science Education

UNESCO (UNESCO) published the report in 1988, separating marine education into Specialized marine science education and General marine science education. The former is major training the professional marine science people with special skills, the latter is making international citizen of the ocean. Japan, the United States and the Australia pay attention to the marine basic knowledge and literacy. Not only putting the marine culture into the marine education, but also more emphasis on marine-related human resources development. In recent years, the climate changes problems like global warming, making the marine thinking way is more and more recommend between the nations. In October 2005, NOAA, COSEE, and NMEA published a list of 7 Essential Principles and 44 Fundamental Concepts that currently define Ocean Literacy. Ocean Science Literacy serves as a national standard for marine education.

2.3 Learning Motivation, Learning Interest, and Learning Achievement

Zhang Chunxing and Lin Qingshan (1989) interpret the term "interest" as "the inherent tendency of an active subject," and that interest is motive, the difference is only interested in the activities of the direction of the more focused, More specific. Thus, both "interest" and "motivation" can be seen as intrinsic causes of individual behavior. Furthermore, interest can be regarded as motive, but there are still differences between the two: First, interest is the focus of motivation, motivated by the act of special things tend to be called interest. Motivation can produce behavior, but motivation does not necessarily evolve into interest. Second, there are motives in the engine and the outside of the sub-machine, only the internal motivation can be interpreted as an interest. In the application of school education, the study interest is often used to explain the reasons for the success or failure of school children, such as a bad academic factors, usually attributed to "not interested", and that interests and learning motivation between the close relationship. As long as the appropriate motivation in the teaching and maintenance of student motivation, school children of all learning activities within the school, naturally interested.

Zhang Chunxing (1994) pointed out that the meaning of interest refers to the individual to the performance of a person or something to pay attention to the choice of the inner heart. Therefore, interest can be inferred from the explicit behavior, when there are a variety of things present in front of the individual, something in particular caused the attention of the individual, you can infer that he was interested. The second difference is that interest and motivation, the difference between the two is that the goal may not be achieved due to motivation, and interest is due to the motive of the target several times to be met, thus generating interest. Haussler et al. (1998) pointed out that subject-related interest can be divided into two different parts, the first part is the interest in learning the content of the subject, that is, the level of interest in knowledge, the second part for all teaching and learning and performance activities, Interest in arranging activities. Hoffmann (2002) indicted that interest has two levels, can be divided into the first level of personal interest for long-term impact; the second level of interest for the situation, for a short time around the impact. Based on the two-level interest classification, Hoffmann divides the interest into subject-based

learning interest and subject-related learning activity. The former refers to students' interest in the subject text of the natural science textbook. The latter refers to students' interest in learning activities related to the content of natural science textbooks. Interest and interest in everyday life activities related to scientific topics, distribution of interests under the theme. In addition, Gardner's (1985) three items of interest include:

(1) interest in the subject matter, (2) interest in the subject-related activities of daily living, and (3) engaging in the subject matter of science and the activities of daily living. (Fan,2011;Tuan, Chin., & Shieh,2005 ; Sansone & Smith,2000 ; Pintrich & Groot, 1990)

III. Method and Tools

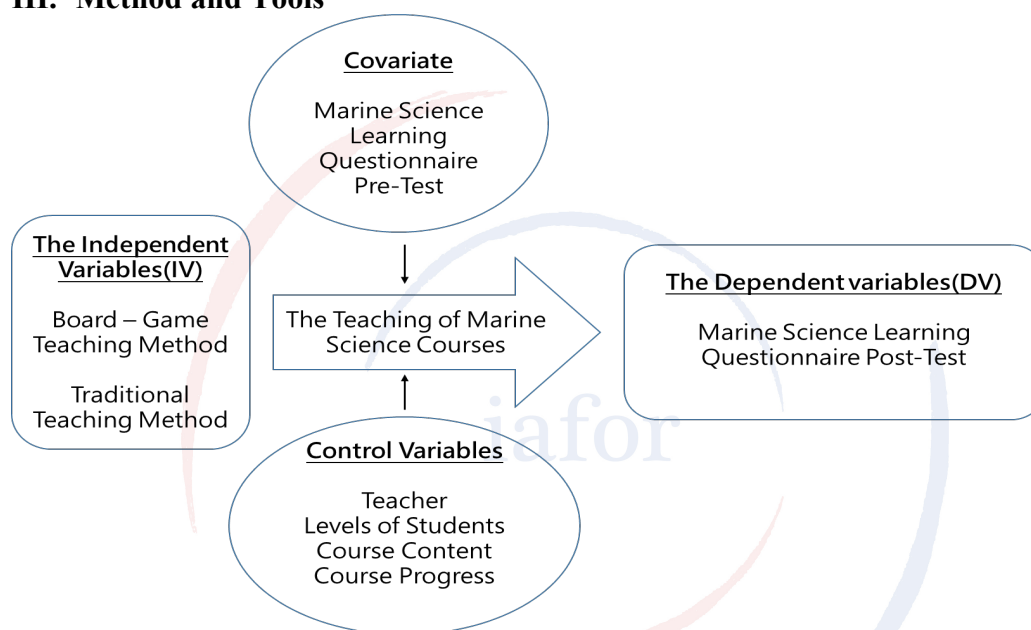


Figure 1 Study framework

This Study made a research in two classes which have similar level in the junior high school in Taipei City through quasi- experiment method .The total subjects are 51 students, there are 25 students in the board game teaching experimental class, while there are 26 students in the traditional teaching control class. The board game "M.O.S." (Marine, Ocean, Sea) is the main auxiliary tools of the board game teaching experimental class , and the traditional teaching control class using direct-introducing teching method. Both teaching methods in classes with multimedia, the projection machine, and the a series worksheet. The research framework shown in figure 1 above.

3.1 Marine Science Learning Motivation Inventory:

The marine science motivation was measured by " Marine Science Learning Motivation Inventory " which includes four dimensions: (1) Attention (2) Relevance (3) Confidence (4) Satisfaction. Participants in the " Marine Science Learning Motivation Inventory " can choose five options, 5 for definitely agree, 4 for agree, 3 for normal, 2 for not agree, and 1 for definitely not agree. Then evaluating the score of the motivation Inventory, with higher score, means the participant had the higher level

of recognition in the dimension.

3.2 Marine Science Learning Interest Inventory:

The marine science interest was measured by " Marine Science Learning Interest Inventory " which includes (1)Feelings about the Ocean (2) Cognition Of the ocean (3) Action Of Marine Science. Participants in the " Marine Science Learning Interest Inventory " can choose five options, 5 for definitely agree, 4 for agree, 3 for normal, 2 for not agree, and 1 for definitely not agree. Then evaluating the score of the motivation Inventory, with higher score, means the participant had the higher level of recognition in the dimension.

3.3 Marine Science Learning Achievement Examination:

On the basis of tidal land published National Museum of maritime science and technology Digest (2014,01), the world fleet by cultures around the world published the ducklings (2013), the higher education publishing (National Taiwan Ocean University Professor series) of the marine education-understanding of teaching and learning (2012), National Geographic published One of the Ocean(2012) guidelines on environmental literacy teaching foreign literature and 95-104 higher secondary school subject logging question, the Marine Science Learning Achievement Examination is designed as the knowledge of marine science multiple choice question.

To improve the content validity of the questionnaire as a whole, prepared the first draft of the questionnaire is completed, 7 experts and scholars to assist in the identification of the questionnaire content representation and appropriateness as an expert according to content validity, confirmation preparation is complete, then pretest. Pretest of the targeted sample of 122 in grade nine students, upon analysis of the project removing inappropriate topics, questionnaire study of variable dimensions of average sampling variance (Average variance extracte) above 0.8, the combination of reliability (Component reliability) amounted to 0.9 per cent, and extracted variance is consistent with greater than 0.5 per cent, the combination of reliability coefficients are in very good (very good) area Combining reliability, 0.6 per cent for the right generally considered acceptable range of 0.5 per cent (Kline, 1998; Hair, 2010; Bogozzi & Yi , 1988; Diamntopoulos and Siguaw, 2000), and marine learning motivation scale and its interest in marine science scale factors, KMO 0.916 and 0.938, respectively, in accordance with this amendment is finalized. Official Qian measuring questionnaire Cronbach's alpha value in sea section learning motivation four frame surface, respectively for (1) Note: 0.876 (2) related: 0.851 (3) confidence: 0.839 (4) meet: 0.921, total table for 0.952; in sea section learning interest three frame surface, respectively (1) on marine of affection feel: 0.882 (2) on marine of cognitive: 0.954 (3) on marine science of action performance: 0.875, total table for 0.932. And in Hou measuring proceeds of Cronbach's alpha value data, haike learning motivation four frame surface, respectively for (1) Note: 0.915 (2) related: 0.823 (3) confidence: 0.815 (4) meet: 0.924, total table for 0.956; in sea section learning interest three frame surface, respectively (1) on marine of affection feel: 0.716 (2) on marine of cognitive: 0.827 (3) on marine science of action performance: 0.863, total table for 0.927. Conclusion this study scale letters school degree expedient, as shown in the following table 1~2.

Table 1 Component reliability of Pre-test

The Study Variables	Dimensions	Cronbach' s α (Pre-test)	
Marine Science Learning Motivation	Attention	0.876	0.952
	Relevance	0.851	
	Confidence	0.839	
	Satisfaction	0.921	
Marine Science Learning Interest	Feelings about the ocean	0.882	0.932
	Cognition Of the ocean	0.954	
	Action Of Marine Science	0.875	

Table 2 Component reliability of Post-test

The Study Variables	Dimensions	Cronbach' s α (Post-test)	
Marine Science Learning Motivation	Attention	0.915	0.956
	Relevance	0.823	
	Confidence	0.815	
	Satisfaction	0.924	
Marine Science Learning Interest	Feelings about the ocean	0.716	0.927
	Cognition Of the ocean	0.827	
	Action Of Marine Science	0.863	

Before this research in experiment teaching of experimental classes and control classes give junior high students board games teaching marine science education learning motivation, interest and study on the effect of pre-test of the questionnaire and give table games after finishing the experiment teaching marine science education on junior high students learning motivation, interest and effectiveness study of questionnaire survey and open attitudes questionnaire.

3.4 Marine Science Board-Game 「M.O.S.」

This research design of teaching aids "M.O.S.", for Marine, Ocean, and Sea three a English word abbreviations, it was designed into the theme for marine garbage patches. The global main wind blow currents and the temperature salt circulation planning background route (as Figure II), and according to marine garbage of status problem and the reference Feller of 110 a marine fans thought combined marine science knowledge design out brand group, is divided into marine garbage brand (168 cards), and marine event brand (40 cards), and marine Miss card(40 cards), During the game, you can become familiar with the world's leading ocean thermohaline circulation and the flow and know what is marine debris marine influence, as well as the knowledge to understand the many myths of the sea, so as to promote ocean awareness and literacy.

"M.O.S." rules of the game are as follows:

1. Take 10 garbage hand cards in each group, select start IN the beginning (the Equatorial countercurrent), each set of starting points for the 80 points.

2. Call for Marine Ocean Sea determines the number of progress before his group (0~3), stay still repeat the action.
3. Plug in box number n: take n. garbage cards
 Stop on the arrow: saving animals animals or not.
 Animal rescue: according to different marine animals (30 points.)
 Whale: plastic bags, plastic bottles, plastic boxes, plastic sheeting
 Turtle: straws, forks, plastic bags
 Seals: fishing net, rope, rubber products
 Seabirds: lighter, canned food, tobacco
 Penguin: plastic caps, plastic particles, plastic debris
 Save animals: (20 points).
4. Park stream: Ocean events, based on the encounters.
 Stop in a cold stream: Miss the ocean, got 30 points, the wrong answer lose 30 points.
5. Yellow stars, you can choose to forward direction.
6. Circulation into delivery via conveyor belts, around to the point after the conveyor belt to another point.
7. meet in the same grid points average.
8. After 10 rounds, calculating points,
 $\text{total score} = \text{points} - (\text{number of hands cards} \times 3)$
 the highest score is winner.



Figure 2 Board-game "M.O.S." background

"M.O.S." activities of the process carried out in groups, led by teachers who teams play, step at a time decided by the teacher called out when Marine Ocean Sea, then members of the group to rise a hand with 0~3 fingers, and total number of fingers presents the next groups step to go forward, increasing more fun to play and

participation.

The research program amounts to 12 courses in marine sciences, mining investment and multimedia about law in the course of the film in the control group; experimental groups were paired with a self-designed marine science teaching aid of table games, so as to promote marine-related knowledge learners ' motivation and interest in learning, curriculum planning, two in the following table.

IV. Results

4.1 Descriptive Statistics

After Experimental group and the control group of the students in marine science curriculum, the results of marine learning motive, marine learning interest and marine learning achievement Test in differences dimensions' descriptive statistics as the following tables, table IV, table V, as shown in table VI.

Table 3 Descriptive Statistics of Learning Motivation

Marine Science Learning Motivation	Class	Number of students	Average score	Total points of each Dimensions	Standard deviation
Attention	Experimental Class	25	17.840	25	2.9956
	Control Class	26	16.115	25	5.6237
Relevance	Experimental Class	25	15.320	20	3.3257
	Control Class	26	12.346	20	3.9592
Confidence	Experimental Class	25	12.080	15	2.2716
	Control Class	26	10.000	15	3.6000
Satisfaction	Experimental Class	25	17.920	25	4.5909
	Control Class	26	15.692	25	4.8807
Total score of all Dimensions	Experimental Class	25	63.160	105	1.9780
	Control Class	26	54.154	105	17.0756

Table 4 Descriptive Statistics of Learning Interest

Marine Science Learning Interest	Class	Number of students	Average score	Total points of each Dimension	Standard deviation
Feelings about the ocean	Experimental Class	25	11.600	15	2.3629
	Control Class	26	8.885	15	3.6805
Cognition Of the ocean	Experimental Class	25	15.720	20	3.0210
	Control Class	26	12.154	20	5.4310
Action Of Marine Science	Experimental Class	25	14.080	20	3.9149
	Control Class	26	11.038	20	5.3924
Total score of all Dimensions	Experimental Class	25	41.400	55	8.9907
	Control Class	26	32.077	55	14.1843

Table 5 Descriptive Statistics of Learning Achievement Test

Marine Science Learning Achievement Test	Class	Number of students	Average score	Number of questions	Standard deviation
Memory	Experimental Class	25	3.760	4	0.4359
	Control Class	26	2.731	4	1.6139
Understanding	Experimental Class	25	3.360	4	0.9074
	Control Class	26	2.654	4	1.2631
High - level thinking	Experimental Class	25	5.360	7	1.8000
	Control Class	26	3.731	7	2.0111
Total score of all Dimensions	Experimental Class	25	12.520	15	2.6000
	Control Class	26	9.115	15	4.2926

4.2 One-way analysis of covariance

1. Experimental group and control group before the students' learning achievement scores for all variables, variables in teaching law, post-test scores for the dependent variables, covariates of single factor analysis are shown in the following table 7~ 10. In table 7, experiment group and control group in "marine science learning motivation" of "Relevance " ($F= 6.852, p=0.012<0.05$), and "Confidence " ($F= 6.409, p=0.015<0.05$) to degrees up significantly differences, so " Board-game teaching can enhance students' learning motivation in marine science " should to accepted. In table 8, experiment group and control group in "marine science learning

interest" of "Cognition Of the ocean " ($F= 4.183, p=0.046 < 0.05$) to degrees up significantly differences, so " Board-game teaching can enhance students ' learning interest in marine science " should to accepted. Statistics results of experiment group and control group in marine science learning achievements test in "memory" ($F= 9.921, p=0.003 < 0.05$), and "understanding" ($F= 5.109, p=0.028 < 0.05$), and "high-level thinking" ($F= 10.464, p=0.002 < 0.05$) and "total" ($F= 158.338, p=0.001 < 0.05$) are significant differences, so " Board-game teaching can enhance student learning achievement in marine science " should be accepted. And in the descriptive part, the experimental group outperformed the control group shows board game teaching method on marine science learning motivation and interest in marine sciences and marine science learning with good results .

Table 7 The Covariance of Marine Science Learning Motivation

Motivation Dimensions		SS	DS	MS	F	P
Attention	Between groups	39. 136	1	39. 136	1. 881	0. 177
	Within groups	998. 752	48	20. 807		
Relevance	Between groups	92. 386	1	92. 386	6. 852*	0. 012
	Within groups	647. 231	48	13. 484		
Confidence	Between groups	59. 082	1	59. 082	6. 409*	0. 015
	Within groups	442. 458	48	9. 218		
Satisfaction	Between groups	65. 552	1	65. 552	3. 007	0. 089
	Within groups	1046. 337	48	21. 799		
Total	Between groups	997. 024	1	997. 024	4. 468*	0. 040
	Within groups	10710. 72	48	223. 140		

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 8 The Covariance of Marine Science Learning Interest

Interest Dimensions		SS	DS	MS	F	P
Feelings about the ocean	Between groups	5. 730	1	5. 730	0. 691	0. 410
	Within groups	398. 229	48	8. 296		
Cognition Of the ocean	Between groups	57. 692	1	57. 692	4. 183*	0. 046
	Within groups	662. 096	48	13. 794		
Action Of Marine Science	Between groups	34. 101	1	34. 101	1. 897	0. 175
	Within groups	862. 902	48	17. 977		
Total	Between groups	4. 823	1	4. 823	0. 047	0. 828
	Within groups	4876. 228	48	101. 588		

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 9 The Covariance of Marine Science Learning Achievement Test

Achievement Test Dimensions		SS	DS	MS	F	P
Memory	Between groups	14. 144	1	14. 144	9. 921**	0. 003
	Within groups	68. 432	48	1. 426		
Understanding	Between groups	6. 347	1	6. 347	5. 109*	0. 028
	Within groups	59. 635	48	1. 242		
High-level thinking	Between groups	37. 752	1	37. 752	10. 464**	0. 002
	Within groups	173. 168	48	3. 608		
Total	Between groups	158. 338	1	385. 184	158. 338**	0. 001
	Within groups	606. 257	48	12. 630		

$p < .05$ ** $p < .01$ *** $p < .001$

*

V. Conclusion

Based on the above findings, where you can find board games teaching in marine science learning motivation and interest in marine science and ocean science learning achievements are directly about teaching effect for better than the traditional teaching, the detailed explanation is as follows:

First, in terms of marine science learning motivation, in addition to "Attention, Satisfaction " two dimensions are not significantly different, the other dimensions "Relevance, Confidence and Total" are significant in the board game teaching method.

Second, in terms of marine science learning interest, "Cognition" perspectives presents significant differences, but in "Feelings about the ocean, Action Of Marine Science " and "Total score" the game teaching method has no significant differences. That shows students ' learning interest of game teaching method in "Cognition" in general good.

Third, marine science learning achievement tests in the "memory, understanding, high level thinking and the total" dimensions are significantly better in the board game teaching.

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L2 Learners' Awareness through a Joint Student Exchange Program

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Abstract

L2 learners generally expect that participating in an exchange program will help to develop their target language through various social interactions with local people. Collaborative activities in a program can enhance learners' opportunities for examining their target language, and for understanding culture, history, life style and environment. In this study, 15 Japanese college students participated in an exchange program in Singapore. They engaged in a joint project with 16 Singaporean students, forming where they were divided into small groups. Giving a presentation to all the groups partaking in the study was set as the goal of the joint project. The students from both countries discussed a project topic on-line over the course of one month, and finalized the presentation with face-to-face communication at the campus in Singapore.

This paper aimed to investigate L2 learners' awareness of language ability in the target language and intercultural understanding through the experience of a short-term student exchange program in Singapore. A survey was conducted to evaluate the project-based activity among the group of Japanese students. Interviews for retrospective verbal reports were conducted in order to study the small group of the participants in depth, and were analyzed qualitatively. The students reported the improvement of their language ability as 4.07 on a 5-point Likert scale. The valuable social activities with the local students resulted in positive changes in awareness of cultural differences.

Keywords: short-term exchange program, project-based learning, L2 learners' awareness

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Introduction

Traditionally, student exchange programs provide foreign language learners with a valuable opportunity for cultivating language ability and improving intercultural understanding through the experience of socializing with new friends in the target language country. According to Centinavci (2012), the purpose of foreign language learning and teaching programs is to help learners develop their competences in communicating in the target language. Centinavic (2012) illustrated the historical overview of the three major competences. Linguistics competence (Chomsky, 1965, 1980) is implicit knowledge of language processed by native speakers. Communicative competence (Hymes, 1972) is native speakers' knowledge of how the language is used. Intercultural communicative competence (Wiseman, 2002) is knowledge, motivation and skills required for appropriate and effective interaction with people in different cultures. When students participate in exchange programs, it is expected that interactive activities with local new friends would help them to enhance their linguistic knowledge, increase willingness to communicate in the target language, and motivate them towards understanding the target culture.

One important aspect of study abroad programs is that of students' preparation of intercultural learning (Deardorff, 2011). It is beneficial for students to engage in language activities as a means of increasing their knowledge of the target culture because those activities would enable them not only to develop language skills but also to foster a positive attitude toward the target culture. Uso-Juan and Martínez-Flor (2008) proposed a cultural project for building learners' communicative competence in the target language. The project consists of three phases: explanation, collection and implementation. In the first phase, teachers explain the concept of cross-cultural competence to their learners. In the second phase, learners work on the task of collecting materials of the target culture by themselves. In the final phase, learners work on various activities using the four skills of listening, speaking, reading, and writing. This type of activity can be incorporated into a student exchange program as an advance preparation task so as to help to increase learners' prerequisite knowledge of the target culture.

Some empirical studies have explored learners' cultural awareness in an overseas program. Berwick & Whalley (2000) examined Canadian high schoolers' culture learning in a Japanese immersion program, using the culture learning journal. The journal entries were analyzed with regard to three major categories of reflection in learning: content reflection, process reflection, and premise reflection. The finding of Berwick & Whalley's study (2000) suggested that the journal experience may be beneficial to cultivating learners' self-knowledge and to supporting their better understanding of culture and its social structure. Yashima (2010) examined how an international volunteer work project affects the intercultural competence of Japanese university students, and found that the experience of the volunteer work enhanced the participants' further intercultural competence. Focusing on a short-term project-based overseas program, Goulah (2007) studied the impact of content-based digital video project abroad on the quality of learners' foreign language learning. Students enrolled in a one-month program credited abroad and were involved in the digital video project collaboratively and individually. Although it was a challenge to use the target language, students conducted the video project over the discussion for content, grammar and vocabulary. Making videos assisted students in authentic target language reading, writing, and speaking when interfacing to navigate commands of a

computer and shooting a video. Learners' retrospective reflections based on the experiences in the target language country provide teachers and researchers with valuable information on cognitive aspects of language awareness and their awareness of intercultural understanding.

Purpose and Research Questions

The purpose of this study is to investigate L2 learners' awareness of language ability in the target language and intercultural understanding through the experience of a joint project-based exchange program in Singapore. The study attempts to answer the following research questions.

1. How does the project-based exchange program affect L2 learners' awareness of the quality of their target language learning?
2. To what extent does the project-based exchange program facilitate L2 learners' intercultural understanding?

Context

The study context was that Japanese college students experienced a 10-day joint project exchange program in Singapore. The participants planned to visit two polytechnics in Singapore in March, 2016. The preparation period began in January and two tasks were assigned. The first task was to give an oral presentation about Japanese culture at two polytechnics. The second task was for individual participants to conduct a joint project with one of the polytechnic students. The goal of the joint project was to give a group presentation on a provided topic (i.e. social issues). In Japan, the students formed eight groups with Singaporean students and discussed the topic online. When the students were in Singapore on the first and second day, each group worked on their PowerPoint presentation. On the third day, all groups gave a presentation. Teachers in charge of the exchange program evaluated performances of the group presentation. An awards ceremony was held for the presentation contest. The unique aspect of the joint student exchange program is that the students discussed the provided topic online as a pre-task, and gave a group presentation with Singaporean students after face-to-face discussion in Singapore. In addition to the two required tasks, the Japanese culture presentation and the joint project, Japanese students had opportunities to engage in social activities with Singaporean students on campus and in the town.

Method

Participants

The participants in the 10-day exchange program in Singapore were 15 Japanese college students (M=10, F=5). The age of participants ranged from 18 to 20 years old. All students completed the two required tasks in the exchange program: a group presentation on their own culture, and a joint project via online and face-to-face communication with Singaporean students. Four students (M=1, F=3) in the group were recruited to a retrospective interview in L1.

Data collection

Data collection aimed to be triangulation that consists of a questionnaire and a retrospective interview. The two types of data were collected after the students

completed the exchange program. First, a questionnaire survey in L1 was given to 15 students. Two major themes of the questionnaire were formulated: (1) awareness of language ability and (2) awareness of culture. Fourteen questions were designed, using a 5-point Likert scale (1 = not at all aware: 5 = extremely aware). Second, semi-structured interviews were carried out in order to study the learners' awareness in depth with four volunteers individually for approximately 40 minutes each. All interview data were recorded and transcribed. The transcripts were read through several times and coded by categories of the two main themes: awareness of language ability and awareness of the target culture.

Results

The students showed their awareness of language ability and awareness of cultures in a positive manner. Table 1 represents the results of students' questionnaire responses on awareness of language ability and culture. In terms of the first main theme, 'language', the highest awareness the students showed was gains in motivation for learning English. The mean score was 4.80 on a 5-Lickert scale. The second highest mean score was 4.53, which was learners' awareness of gain in willingness to communicate in English. The third highest mean score, 4.07, was awareness of improvement of English language ability over time. Regarding the four skills, the results revealed that the students were aware of changes in speaking the most, then listening, reading, and writing abilities.

Table 1. Students' questionnaire responses on awareness of language and culture

Main theme	Questionnaire item	Mean score	SD
1. Language	1. I feel I improved my English language ability over time.	4.07	0.80
	2. I noticed changes in my English speaking ability.	4.07	1.10
	3. I noticed changes in my English writing ability.	2.93	0.88
	4. I noticed changes in my English listening ability.	3.87	1.03
	5. I noticed changes in my English reading ability.	3.33	1.36
	6. My motivation for learning English increased.	4.80	0.90
	7. My willingness to communicate in English increased.	4.53	0.41
2. Culture	1. Due to the experience of Japanese culture presentation, I understood our culture better.	3.93	0.83
	2. Since I gave a Japanese culture presentation, I want to understand our culture more.	4.33	0.46
	3. Due to the experience of the joint project, I understood Singaporean culture better.	4.53	0.72
	4. Due to the experience of Singaporean students' culture presentations, I understood their culture better.	4.67	0.52
	5. Due to the experience of the social activities with Singaporean students, I understood their culture better.	4.53	0.49
	6. Due to the experience of the student exchange program, I want to understand culture in Singapore better.	4.53	0.64
	7. Due to the experience of the student exchange program, I want to understand cultures in English speaking countries.	4.60	0.74

Regarding the second main theme, ‘culture’, the highest awareness was understanding the target culture through Singaporean students’ culture presentations. The mean score was 4.67. The second highest mean score of 4.60 was their awareness of desire to understand cultures in English speaking countries. The third highest mean score was 4.53, showing awareness of better understanding the target culture through the experience of the joint project and through the experience of the social activities, and their awareness of a desire to understand culture in Singapore.

The results of the secondary data analysis were learners’ awareness of language ability and culture. Table 2 shows a list of the main categories and subcategories that emerged from the interview data analysis. In the first main category – language – four subcategories emerged: noticing changes in the target language ability, motivation to learn English, motivation to communicate in English and needs for a specific language skill. In the second main category - culture - four subcategories emerged: life style, environment, knowledge of own culture, and national character.

Table 2. Categories and subcategories for analyzing the interview data

Category	Subcategory	Definition of subcategory
1. Language	1. Noticing changes in the target language ability	Experience of the exchange program influence on noticing changes in the target language ability
	2. Motivation to learn English	Experience of the exchange program influence on changes in motivation to learn English
	3. Motivation to communicate in English	Experience of the exchange program influence on changes in motivation to communicate in English
	4. Needs for a specific language skill	Learners’ awareness of needs for improving a specific language skill
2. Culture	1. Life style	Understanding the target life style
	2. Environment	Understanding the target environment
	3. Knowledge of own culture	Rediscovering their own culture
	4. National character	Noticing differences in characteristics of each nation

The interviews revealed students’ awareness of a range of experiences relating to interaction with new friends in the exchange program. The first main category is learners’ awareness of language. All of the four students commented that they noticed ‘changes in the target language ability’. Two students reported their TOEIC test scores significantly increased after the experience of the exchange program. One student said that she noticed her listening comprehension of the test was better than last year. She also said, “After returning to my home country, (I think) it would be fun if I can understand English better. Thinking of connecting with (friends in) the world is also fun, so I have been studying English.” Hereafter, when original quotations include ellipsis in L1, the interpretation for the ellipsis is added in parentheses. The other student reported that his reading section score increased

significantly. He recalled the fact that it was not difficult to read texts at museums in Singapore. Regarding the process of speech production in the target language, one student commented that she noticed the fact that she was able to generate English sentences without thinking of English structures. She stated as follows:

“Before going (to Singapore), I thought of (speaking English in) a difficult way that (first) I should construct a structure of a sentence when I speak English sentences. ... I came to think (of speaking English sentences) flexibly, so that I can express myself (in English) without such a difficulty.”

In terms of overall listening comprehension, one student reported that she noticed her listening comprehension improved as follows: when she did not understand some words in a speech, she managed to make inferences to understand the content. Even though all of students noticed improvement of the target language ability, one student commented on a pronunciation issue that he had to overcome. He noted that he could not make himself understood verbally, so he had to write down what he was trying to say. Although students' responses on awareness of noticing changes in the target language varied due to individual differences in linguistic proficiency, all of the four students acknowledged positive changes that would lead them to improve their overall linguistic skills.

The second subcategory is ‘motivation to learn English’. All of the students said they increased their motivation to study English. Two students said they would like to acquire a native-like speaking ability. They felt they wanted to employ a variety of English expressions in a speech naturally. One of them said, “I could not make myself understood. (I noticed the fact) I could not utter even easy words several times. So, I want to increase variations (of English expressions).” One student said he would like to gain knowledge of his specialized subjects in English since he was planning to go on to higher education. One student said learning English would be beneficial for her future research and career. In addition to a motivation gain in learning the target language, English, one student commented that she would like to learn their mother tongue of her new friends, Mandarin Chinese. Through the experience of the exchange program, all of the four students seemed to recognize their individual reasons for the purpose of learning English, which resulted in a motivation gain in learning foreign languages.

The third subcategory is ‘motivation to communicate in English’. Three out of the four students stated that their motivation to communicate in English increased because they still kept touch with their new friends. One student reported she noticed her attitude to speaking to a foreigner had changed. Before visiting Singapore, she hesitated to help foreigners at a station who spoke English. However, she willingly assisted a foreign traveler at a station after the exchange program. One student did not explicitly comment on motivation gain. She pointed out there were not many opportunities to communicate in English in Japan. However, she said, “I learned that if I have a chance to communicate in English, I should willingly speak in English.” Motivation gain in communicating in English reflected students' willingness to interact with their new friends online, and is arguably due to their positive experiences of socializing with Singaporean students during the exchange program

The fourth subcategory is 'needs for a specific language skill'. All of the students reported on their positive attitude to acquiring language skills. Two students wanted to improve their communication skill because they were keen on going abroad in future. One student commented on presentation skills. During the group presentation on the joint project, he felt he could not respond to questions from the audience appropriately. Since he would like to be able to give a presentation at an international conference in future, having good presentation skills in English is essential for him. One student stated she wanted to improve her writing skills so that she could develop overall English skills. She said, "I acquired the skill of responding immediately (in English) during my visit. However, I was not able to express myself. In this respect, I can improve this ability by writing (exercises)." Through the reflection on the experiences in the exchange program, the students noticed what aspect of the target language learning was precisely necessary to develop further language skills for individual specific purposes.

The second main category is learners' awareness of culture. The first subcategory that emerged is life style in Singapore. All of the four students said Singapore was a multi-ethnic country and religions differentiate people's customs. One student students were surprised at a different food culture in Singapore. Two students mentioned the strictness of law in Singapore. One student said she learned that the government of Singapore supported education in many ways. For example, water and electricity fees are paid by the government. Social activities that enabled the students to interact with Singaporean students, such as sightseeing and a campus tour, seemed to help the students to see and learn specific features in the target culture and appreciate details of its cultural constructions.

The second subcategory is 'knowledge of one's own culture'. All the students said they had better understanding of their own culture after giving a culture presentation. One student commented that she learned some new facts about her own culture because she saw other groups' culture presentations. Some students reported that they learned new facts about Japanese history. Some noticed a positive aspect of their own culture, for instance, Japanese hospitality and the recycling system. One student who gave a culture presentation on calligraphy said, "I learned something new while searching (the information on) calligraphy. I found (the fact that there is) calligraphy for street performance, such as (calligraphy) performance with music and dance." The project-based exchange program and its social activities provided the students with the opportunity to learn some new facts about their own culture and country.

The third subcategory is learners' awareness of 'environment' in the target culture. Two students commented that the nation was small, but there were different cultural areas. One student said, "Even walking along a street for a short period, I noticed the townscape of each area changed so quickly." One student learned that buildings in Singapore were built in various structures because they did not need to worry about earthquakes, unlike Japan. Although their stay in Singapore was only for a short period, they learned some apparently different features of environment.

The fourth subcategory is learners' awareness of differences in 'national characteristics' of each nation. Some students commented that Singaporean students were cheerful, bright and friendly. One student said there was no hierarchical

relationship in terms of age. Two students noted Singaporean students knew their family roots well. One of the students commented on family roots as follows:

“... I thought history was a subject to memorize, so it was meaningless. However, in order to interact with foreign people, we must know history. ... We need to understand our place in the world. ... I realized the importance of understanding our roots.”

Overall, the students' responses on language ability and the target culture were relatively positive rather than negative, as all of them showed their interest in international exchange in future.

Discussion and Conclusion

The short-term project-based exchange program facilitated students' communicative and social interaction extensively, so that the students used the project to evaluate their current ability in the target language and gain an understanding of the target culture and their own culture. Regarding the first research question, learners' awareness of the quality of their target language, the students showed their awareness of motivation gain in learning English. This is probably because the students engaged in a continuing communication with Singaporean students throughout the exchange program. As Dornyei and Ushioda (2013) note, cooperative learning enables learners to maximize their collaboration and to enhance their motivation system to activate learning. In the joint project, successful cooperative learning experience helped students enhance their motivation to continue learning English. Having made goals to develop their English language skills for individual reasons, they were keen to develop target language learning further.

The students acknowledged changes in their speaking ability the most. While engaging in the joint project and social activities, they interacted with Singaporean students in the target language extensively. Arguably the experience of the joint exchange program pushed the students to express themselves in the target language. Their speech output enabled them to evaluate the capability of what they actually managed to say in English, which in turn made them notice their speaking level (Izumi, 2003).

In terms of the second research question, learners' awareness of understanding the target cultures, the experiences in the joint exchange program helped the students increase their positive attitude toward the target cultures. Their awareness of intercultural understanding was based on their experiences during the short period of the program (i.e. what they saw, what they heard, and what they ate). Although the short-term exchange program seemed to result in a superficial understanding of the target cultures, the social interaction prompted the students to deepen their views of understanding different cultures, and reflect on their prior knowledge of the world.

The limitations of the current study are twofold. The first limitation is the small sample size. The findings are limited within the current study context. The second limitation is a potential confounding variable. Even though the questionnaire survey and interviews were given with the emphasis on the phrase, “reflecting on the experience of the joint student exchange program,” students' responses might be

based on their entire experiences in a 10-day exchange program, which can be a confounding variable.

The implication of the current study for language learning and teaching is that since a collaborative group project provides a common goal for students to work on, this type of a joint exchange program would encourage students to communicate with native speakers as new friends and facilitate language learners' willingness of their linguistic, social and cultural interaction. Most importantly, the outcome of learners' positive attitude to the target language and culture would motivate them to continue language learning.



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On the Threshold: the Story of School Security Guards in Israel

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Abstract

We often talk about the ways in which education should change society. However, we should also be sensitive to the ways by which social reality – sometimes harsh and unjust – influences education, and the intricate interplay between these two spheres. Under the conditions of neoliberalism, in Israel, as in many other countries, the practices of outsourcing and subcontracting are spreading rapidly. Simultaneously, private security services, which rely on them, are flourishing. Moreover, in Israel there is a unique security climate, and one of its consequences is the development of a sub-sector of private security in the form of school security. Thus, a tangible meeting point is emerging among educational, socio-economic and political factors, where school security guards play the role of mediators.

But who are these guards? What does their world consist of and what do they bring to school life? In this paper, I share some of the findings from a qualitative research project that aimed to answer these questions by exploring the world of school security guards and their relations with school pupils, staff and educational processes. The findings suggest that the overall experience of school security guards stands in tension with the security they are supposed to ensure, and that, from their position at the school gate, they act as educational agents, infusing aspects of the socio-economic and political reality into school life while at the same time being influenced by school's educational tendencies, which, at least in some schools, strive to cultivate a commitment to social justice in their students.

Keywords: Neoliberalism, Education, School Security Guards, Israel

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Prologue

A few months ago, I visited a school – a primary school – at whose gate stands a security guard whom I know (in Israel all schools have security guards). My visit corresponded with the end of the school day, and pupils gathered at the school gate, waiting for their parents to come collect them. One of the children asked his friend a question, and his friend answered, "Ask the guard." "Don't call me a guard," said the person who stands all day every day and watches the school from the gate. And I, thinking that I understood the situation, said: "Call him a security guard not just a guard." "No," replied the man at the gate, "not a guard and not a security guard, just call me Dan – that is my name."

The context

Dan is only one of millions of people around the globe and one of hundreds of thousands in Israel whose story dramatizes the repercussions of the economic-political policies of neoliberalism, while, at the same time, are also effects of those policies. Neoliberalism is built – at least ostensibly – on the concepts of personal and economic freedom, while advocating for minimal state intervention in economic and social processes. Many countries, today, are increasingly under the influence of neoliberal principles, as is the global economy more generally. As a result, some profound changes have occurred in the economic-political conduct of many states. Among the most conspicuous of these are:

- Reduction of government regulation
- Limiting welfare spending
- Intensified Privatization

One of the consequences of this intensified privatization is the huge increase in "indirect" employment, namely, employment mediated by a third party, which, in Israel, usually consists of sub-contractors, from whom the customer purchase required services. It is now a common knowledge that this kind of employment hurts both the services and the employees who deliver such services, since indirect employees suffer from substandard employment conditions (Davidov, 2013). Another consequence of this privatization is the growth of the private security market, which swallows more and more security areas that used to be under state control. And, thus, we arrive at workers like Dan.

Similar to many other countries around the world, in Israel, neoliberal economic policies are flourishing. Indeed, some (e.g. Dahan, 2012) claim that Israel is undergoing neoliberal transformation at a faster rate than most other countries. This trend, together with Israel's unique security situation, has led to a gradual and vast increase in the private security sector. This, in turn, has contributed to the creation of a unique Israeli sub-sector, namely, school private security guarding, a phenomenon that is quite rare in other parts of the world. School security guarding is inherently unique due not only to the kind of population under protection, but also due to the role, conduct and goals of educational institutions. It thus seems that by introducing private security into school life, an overlap between two different realms has been created, with likely implications for both of them. It also important to note – and some

would say that this alone is evidence of the profound penetration of neoliberalism into Israeli society, that educational institutions in Israel are among the most conspicuous consumers of indirect employment, using it in the fields of guarding, maintenance and even teaching.

Research situation

The massive spread of private security services around the globe has led to an increase in research on the subject. While most of the studies deal with the social and economic aspects of the phenomenon, only a few have turned their gaze toward the guards themselves – their personal world, their experiences and their perceptions. This dearth of research is even more conspicuous with respect to Israel. The research that does discuss Israel focuses almost exclusively on the problematic working conditions of the private security sector, and there are virtually no qualitative studies that examine the point of view of the guards themselves in any depth. The population of school security guards in Israel is thus a disadvantaged population, not only due to their harsh working conditions, but also in terms of research, and it is this lacuna that the present study wishes to narrow.

Research objectives and questions

The main objectives of the study are (1) to bring forth the voice of school security guards, and (2) to learn about them: Their experiences, their world, and their perceptions. All of this, it is important to note, while paying close attention to the context in which they live and act, namely, in the context of school life and the Israeli educational system.

Accordingly, three main research questions were developed:

- What are the self-perceptions of school security guards?
- How do the school security guards perceive their job?
- How do the school security guards perceive their place and role in the school and in the educational system?

Research design

Answering such research objectives entails a qualitative research approach, namely, an approach that focuses on the sphere of human experience and the ways that people understand and interpret it and the world around them (Merriam, 2002). The particular research type I have chosen is the *basic (generic) interpretive qualitative research*, which includes all of the essential components of qualitative research but does so without a rigid methodological structure, what makes it most suitable for the present study, that is looking for a new and flexible perspective on its subject.

The main data collection tool was in-depth semi-structured interviews, which were supported by observations and document analysis. The varied questions, which emerged from the three main research questions, were open, without specific order or wording, and were accompanied by maximum openness and flexibility in order to respond to any content brought up by the participants.

The technique of purposive sampling was used for choosing participants. Since the purpose of the research was to learn about people who share similar experiences, some homogeneity among the participants was required, such as, for example, a minimum of a year's experience on the job. On the other hand, in order to obtain as many diverse voices and perspectives as possible, I did look for diversity of location, gender and age. Nine school security guards were interviewed, and the average interview length was 75 minutes.

For the data analysis I used a version of the constant comparative method, developing and comparing categories from the very beginning of the field work, and extracting patterns and shared meanings, but without aiming to reach the final end of a complete theory.

Findings

To date, three main categories, or themes, were found, all of which characterize the world of school security guards and which are relevant to the research questions. These categories are:

- Temporariness
- Loneliness
- Relations with school attendees

Temporariness (theme 1): All participants, even the veterans who have worked as school security guards for more than 5 years, emphasize the uncertain and temporary nature of their job. As one researcher puts it: The guards are always "in transition" (Briken, 2011: p. 135), and one of the participants highlighted this point when he said: "This is not a lifetime job. As I told you, it is not job at all. If I want to build a family, and more, I have to find a more reasonable job."

In conformity with earlier research (e.g. Barrett & Sargeant, 2011), it is clear that the problematic employment conditions, to which all the participants referred, and which include low wages, forced non-paid vacations (during school vacations), and the absence of any job security, all contribute to the experience of ongoing instability and insecurity. However, there are other factors that intensify this experience.

There is also the feeling of *loneliness* (theme 2). The loneliness of school security guards relates to the physical nature of their work: They are alone at the school gate for up to 8-10 hours a day. All participants complained of the loneliness involved in their work and usually added complaints about loneliness's close companions: routine and boredom. Yet the loneliness does not only emerge as a result of the physical aspect of the job, but also as a result of the participants' feeling of not-belonging, of being on the threshold between one place and another but not belonging to or in any of them. Thus, on the one hand, school security guards do not feel that they are part of the security companies that employ them: "[As a school security guard] nobody ever backs you up;" but, on the other hand, they do not feel like an integral part of the school:

Sometimes I feel that I am part of school and sometimes that I am not. Because there are all kind of events which you are not invited to, but to some events you

are invited. So they, like, tell you that you are part and not part of school at the same time.

Loneliness and not-belonging also relate to the theme of security guards' *relations with school attendees* (theme 3). The study found three sub-categories of this theme: relations with school staff, with parents and with students. All of these are characterized by a sense of ambiguity and uncertainty, but this sense is most prominent in the relations with the pupils. Most participants, especially the men, said that they rather avoid relationships with the students: "I rather not to speak with pupils, not to be in contact with them." Because, for example, "As a father, what would you think if you saw a guard talking to your kid? Immediately you'd think that something is going on. These kinds of things happen in our country." Yet many of the guards also spoke of the special connection that they have with the students: "The positive side of this job is the children. The love they show you."

The ambiguous status of the relations between guards and students was also revealed through observation. For example, the interview with the security guard who said that he tries to avoid contact with the students took place near the guard booth, which is located at the gate of the school. At the end of the interview, I saw the guard heading toward the school building, and I asked him where he was going. He told me that he had lent his football to a student and that he was now going to get it back. When he told me this, a smile of joy appeared on his face.

Discussion

When examining the findings of the current study from a broader perspective, they seem to conform to many other studies that suggest that the world of workers in the neoliberal era is one characterized by instability as well as a lack of safety and clarity (Kalleberg, 2008). Moreover, this study suggests that the experience of such a world is even more acute with respect to "indirect employees," who are employed through sub-contractors. Indeed, to work under these conditions, trapped between the company that hires their services and the one to which they supply it, means – by definition – to swing between belonging and not-belonging, between employment and the threat of unemployment, between the need for economic safety and the inability to satisfy it.

However, the world of school security guards has some unique features that differentiate it from the worlds of other neoliberal workers. These features include, mainly, being the guardians of children and youth in the special environment of an educational institution. The study suggests that while providing the security guards some sense of consolation, the human and institutional environment of the schools in which they work also intensifies the experience of unease and detachment, which characterizes the neoliberal worker more generally. For it is important to keep in mind that in contrast to a mall, a parking lot or a stadium, a school is a community, where intimate, intricate and dynamic relations are the fabric of life. And against this particular background, the need to belong as well as the feeling of being an outsider are reinforced and highlighted.

On the other hand, school security guards also influence the school community. Indeed, how could they not? Their place in the life of the school makes them – unwittingly – agents, educational agents, who inject into school life and the whole

educational system the real world that we all try to hide, at least partially, from our children, particularly within the quasi-closed and protected system of school. But the guard with the gun – and the children always ask about the gun – who sits or stands at the school gate, who belongs to school but does not really belong, who from time to time disappears or is replaced – perhaps because the company which hired him has lost its contract – is a part from the world in which the children are being educated. Moreover, he is part of these children's educational process. Since education acts not only through what we tell our children or what we want them to hear, but also, and maybe mainly, through what they see and experience, and thus being imprinted on them, becoming to be obvious, to obvious, part of their world.

Further research

In order to complete the picture depicted in this study, further research is needed in at least three more areas: First, to deepen the understanding of the self-perception and self-image of the school security guards, especially their sense of professional identity. Second, to study how school attendees – parents, school staff and students, perceive the school security guards and the role they play in school life. Third, to deepen our understanding of the connection between the pedagogical approach of the school (i.e. democratic school, religious school, etc.) and the overall experience and perspective of the school security guards. While it was mentioned in the study, this link requires more data and analysis.

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The Influence of Using Movement-based Game Integrating Guided-Discovery Teaching Model in Safety Education

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Abstract

According to Ministry of Health and Welfare, accident has led death, especially for young adults and children. The iBaby Website analyzed children's accidents and discovered that home, traffic and water are first three places that occurred accidental events and cause children's death. Although daily safety is scheduled in students' formal program, the class time is still insufficient and students do not have the opportunity to practice. Guided-discovery teaching emphasize that students will discover concepts by practicing and movement-based games can retain students' attention and motivation. In this study, Guided-discovery Teaching model will be adapted in a movement-based game to improve primary students' daily safety education. The differences in learning motivation will further be compared and analyzed. Keller's ARCS model was applied to evaluate learning motivation. The results showed that the participants in the experimental group were more motivated in learning especially in the attention, relevance, and satisfaction subscale. The results will be valuable when instructors want to adopt movement-based game technology in developing instructional materials.

Keywords: Guided-discovery teaching model, movement-based game, ARCS model

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Introduction

According to Ministry of Health and Welfare in Taiwan (2013), accident has led death, especially for young adults and children. The iBaby Website (2016) analyzed children's accidents and discovered that home, traffic and water are first three places that occurred accidental events and cause children's death. Although daily safety is scheduled in students' formal program, the class time is still insufficient and students do not have the opportunity to practice. The research showed providing opportunities and preparing environments for students to practice in safety education improve their learning effects (Jiao & Chai, 2012).

The game-based learning environment focuses on learner-centered learning and enables students to practice as well as trial and error. Game-based learning could also maintain students' attention and further stimulate learning motivation (Hao, Hong, Jong, Hwang, Su, & Yang, 2010). Moreover, Coleman asserted that the children in the age of 6 to 12 are in their essential stage of learning motor skills (Ross & Mico, 1980). Movement-based games enable intuitive manipulation and participants control games by body movements instead of mouse and keyboards. It becomes easier to manipulate and to be involved in the game environments for primary students. Movement-based games have been used in motor skills and surgery training (Verdaasdonk, Dankelman, Schijven, Lange, Wentink & Stassen, 2009). However, game-based learning does not assure better learning effects than traditional teaching. It is important to obtain the balance of entertainment and education by adopting appropriate pedagogy (Becker, 2006).

Guided-Discovery Learning Theory is modified from Discovery Teaching Theory, which was brought out by Bruner (1966). The Theory emphasize on learner's discovery and thinking. Research stated that learning is time-consuming with low efficiency when the guidance was limited (Skinner, 1968). Elementary students need guidance and assistance when they learn (Songer, Shah, & Fick, 2013). Teachers need to guide their students to explore and analyze in the appropriate timing. The Guided-Discovery Learning Theory includes three steps of learning circle and they are discovery, concepts and application. Teachers need to prepared appropriate learning environment for students to discuss and experience. Concepts refer to providing essential concepts that students need to comprehend. Application focuses on students' application the concepts they learned in the new scenarios. Although there is research to confirm the positive learning outcome from this model (Huang, 2012). Applying the model in movement-based games is still very limited.

Motivation is usually a predictor of students' learning achievement (Jeamu, Kim, & Lee, 2008). The most commonly used model that measures individuals' motivation is Keller's ARCS model (Keller, 1987). The model includes four factors and they are attention, relevance, confidence, and satisfaction:

1. Attention: Instructional materials will gain attention from learners and lead learners to explore learning tasks if designed properly (Mayer, 2003; Huang, 2010). How the instructional materials stimulate and sustain learners' interest becomes essential in this factor.

2. **Relevance:** Learners usually will be motivated if the content is aligned with their prior experiences and learning goals (Keller & Suzuki, 2004). This factor measures the extent to which how the instructional materials meet a learner's needs.
3. **Confidence:** Learner will be more motivated to make more learning efforts if they perceive their learning experience as successful (Bohlin, Milheim, & Viechnicki, 1990; Keller, 2008). The extent to which how a learner's feeling of personal control and expected achievement is essential in this factor.
4. **Satisfaction:** Learners will be motivated when they are satisfied with their learning experience (Rodgers & Withrow-Thorton, 2005). Learners' prior experience will also influence their learning satisfaction.

In recent years, Kellers' ARCS model has been applied to design and evaluate instructional materials in learning environments such as computer-based tutorial, interactive learning environment, and game-based learning (Astleitner & Wiesner, 2004; Bolliger, Supanakorn, & Boggs, 2010; Huang et al., 2010). However, limited research has been done on learning environment integrating movement-based game technology. Moreover, experimental research of investigating users' learning effect and learning motivation in the movement-based game learning environment integrating guided-discovery teaching model is also very limited. The purpose of this research is trying to bridge the gap and provide recommendations for practitioners and researchers who are interested in integrating guided-discovery teaching model and movement-based game in safety learning.

Methodology

This was a quasi-experimental research study and two intact classes were used. The research was conducted in an elementary school in northern Taiwan and 63 students participated. A total of 47.17% of them were male and 52.83% were female. All students in the research were required to learn through movement-based games. The content in the movement-based games were highly related to the course content to help participants understand and review what they have learned from the class. One class was randomly assigned as Guided-discovery movement-based game (GDMG) group, which used movement-based game technology based on Guided-discovery teaching model in the class. The other class was named as non-GDMG group and the course was taught by movement-based game only. Both classes were all taught by the same instructor with the same content.

The entire treatment lasted for four weeks. The participants were required to take a pre-test before the treatment and a comprehensive post test after the treatment to help investigate if there is significant difference in learning outcome and satisfaction among groups. Both pre and post tests were highly related to the course content. The tests were provided by the instructor and reviewed by content experts.

The Instructional Materials Motivation Survey (IMMS) was designed by Keller (2006) to investigate learners' level of motivation toward instructional materials. It contains 36 questions with 5-point Likert-scale items that measure learners' motivational reactions to instructional materials. The IMMS is considered a valid instrument and has a documented reliability coefficient of .96 (Keller, 2006). In this study, the survey was modified to find out how movement-based game technology and

Guided-discovery teaching model affects students' learning motivation and the survey was administered at the end of the study. The modified instrument includes 25 Likert-scale items ranging from 1 (strongly disagree) to 5 (strongly agree). The questions included (a) seven questions about attitudes towards attention in GDMG and non-GDMG instructional materials; (b) seven questions regarding students' attitudes towards relevance in both types of instructional material; (c) five questions related to confidence of using instructional materials and learning; and (d) six questions regarding attitudes towards learning satisfaction in both types of instructional materials.

After collecting the survey data, Cronbach alpha coefficients were calculated to determine the instrument's internal reliability. The instrument had a reliability coefficient of .96. Reliability estimates for each category were satisfactory: (a) attention ($\alpha = .87$), (b) relevance ($\alpha = .84$), (c) confidence ($\alpha = .85$), and (d) satisfaction ($\alpha = .86$).

The purpose of this study was to determine if GDMG improves motivation in students' safety learning by investigate how movement-based game technology and Guided-discovery teaching model integration affected students' attitude of attention, relevance, confidence, and satisfaction towards learning.

Results and Discussions

Independent t-test was used to answer research question "Is there a significant difference in learning motivation including subscales such as attention, relevance, confidence, and satisfaction in students using GDMG or not?" The Motivation Survey regarding students' motivation towards learning after integrating GDMG was administered to the students at the end of the four weeks of study in order to answer this research question. The survey includes four subscales and they are: (a) the level of attention brought by the GDMG and non-GDMG instructional materials; (b) the level of relevance from the GDMG and non-GDMG instructional materials; (c) the level of confidence in learning; (d) the level of satisfaction from the GDMG and non-GDMG instructional materials.

1. ARCS: Attention

A composite score from questions 1, 6, 13, 15, 19, 22 and 25 was used to determine students' motivation in the attention perspective. Composite score ranged between 7 and 35. There was statistically significant difference in attention brought by the instructional materials between GDMG and non-GDMG groups ($t=5.86$, $df=61$, $p<0.01$). The 95% Confidence Interval indicates the true mean difference (3.57) may range from $3.18 < \mu < 6.43$. On average, participants in the GDMG group ($M=26.19$, $SD=3.83$) regards the instructional materials to be more attentive than the non-GDMG group ($M=20.24$, $SD=5.17$). The results are shown below in Table 1.

Types	Mean	Std. Deviation	N
GDMG	26.19	3.83	32
Non-GDMG	20.24	5.17	31
Total	23.26	5.26	63

Table 1. ARCS: Attention

2. ARCS: Relevance

A composite score from questions 4, 9, 11, 16, 18, 21, and 24 was used to determine the extent to which the instructional materials relate to learners' need and daily life. Composite score ranged between 7 and 35. There was no statistically significant difference in the level of relevance from the instructional materials between GDMG and non-GDMG groups ($t=1.21$, $df=61$, $p=.29$). The 95% Confidence Interval indicates the true mean difference (3.92) may range from $-.24 < \mu < 2.39$. On average, participants in the GDMG group ($M=26.59$, $SD=3.73$) regards the instructional materials to be as relevant as the non-GDMG group ($M=20.25$, $SD=4.38$). The results are shown in Table 2.

Types	Mean	Std. Deviation	N
GDMG	26.59	3.73	32
Non-GDMG	20.25	4.38	31
Total	23.44	4.05	63

Table 2. ARCS: Relevance

3. ARCS: Confidence

A composite score from questions 3, 5, 12, 17, and 23 was used to determine whether the instructional materials improve learners' confidence. Composite score ranged between 5 and 25. There was no statistically significant difference in the level of confidence between GDMG and non-GDMG groups ($t=1.27$, $df=61$, $p=.31$). The 95% Confidence Interval indicates the true mean difference (.78) may range from $-.46 < \mu < 1.92$. On average, participants in the GDMG group ($M=17.29$, $SD=2.73$) were as confident as those in the non-GDMG group ($M=17.08$, $SD=3.48$). The results are shown in Table 3.

Types	Mean	Std. Deviation	N
GDMG	17.29	2.73	32
Non-GDMG	17.08	3.48	31
Total	17.19	3.39	63

Table 3. ARCS: Confidence

4. ARCS: Satisfaction

A composite score from questions 2, 7, 8, 10, 14, and 20 was used to determine participants' satisfaction toward instructional materials. Composite score ranged between 6 and 30. There was statistically significant difference in learners' satisfaction after using the instructional materials between GDMG and non-GDMG groups ($t=3.16$, $df=61$, $p<0.01$). The 95% Confidence Interval indicates the true mean difference (1.92) may range from $.61 < \mu < 3.28$. On average, participants in the GDMG group ($M=21.59$, $SD=3.37$) regards the instructional materials to be more attentive than the non-GDMG group ($M=18.41$, $SD=4.25$). The results are shown below in Table 4.

Types	Mean	Std. Deviation	N
GDMG	21.59	3.37	32
Non-GDMG	18.41	4.25	31
Total	20.03	4.28	63

Table 4. ARCS: Satisfaction

The purpose of this study was to investigate the motivation of using movement-based game technology and Guided-discovery teaching model in safety learning. The findings of this study confirm that GDMG motivates learners' interest of learning safety in primary education. As for their motivation in learning, participants in the GDMG group have a more positive attitude towards attention, relevance, and satisfaction than those in the non-GDMG group. Many users asserted that GDMG improves their learning and are willing to use GDMG in the education field. These may lead to GDMG users' higher satisfaction with the instructional materials. From the motivation questionnaire, there were no significant difference in users' confidence for preparing exams, this may result from short treatment period and insufficient study time due to equipment issue. A better class arrangement and shorten calibration time is recommended for better performance.


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***Oxbridge and the Nurturing of An 'Urban Gentry' -
The Reform of Oxford and Cambridge in the Mid-Nineteenth Century***

Oliver E Hadingham, Waseda University, Japan

The Asian Conference on Education 2016
Official Conference Proceedings

Abstract

By the mid nineteenth century Oxford and Cambridge had begun to adjust to the demands of educating the future elite of a more fully industrialised nation. Through a series of reforms, Oxford or Cambridge became a more desirable and accessible destination to an expanding section of the middle class. An Oxbridge education became a seal of gentlemanly status in a society where rank counted. Also, through the reforms, it was hoped that the new mid-nineteenth century intake would merge into an 'urban gentry' ready to take on an active public service role within Victorian society. The need for a new elite with a strong public service ethos reflected the desire for social improvement of the mid Victorian decades. This presentation will chart how Oxbridge adjusted to the new reality of the nineteenth century.

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At the start of the nineteenth century, English higher education remained Oxford and Cambridge, unchallenged by rival institutions since their foundation in the late twelve and early thirteenth century. The Scottish universities provided a different model of higher education, one cheaper, more accessible, and broader, where students first studied Classics, philosophy, and science, then progressed to a professional training in medicine, law and theology. Oxford and Cambridge offered a more limited curriculum - essentially, classics at Oxford, mathematics at Cambridge - for students drawn fairly exclusively from the aristocracy (large landowners) and country gentry (minor landowners).

Oxford and Cambridge upheld the established order. The protestant Church of England remained the national church since the Act of Uniformity of 1662, and was allied to what most felt to be a Anglican state. Around two-thirds of Oxbridge graduates during the eighteenth century became Anglican clergymen (Gascoigne, 1989, p. 21). A liberal education rather than a theological education was deemed better preparation: clergymen were focal points within the community, and by the cultivating influence of a liberal education graduates entered the Church more culturally rounded. Indeed, Oxford and Cambridge were tasked to shore up the foundations of what still remained a widely deferential society (Harrison, 1971, p. 117-118; Cannadine, 1998, p. 95-97). Future churchmen were educated alongside aristocratic young men and the sons of country gentry. This ensured the wider social elite was replicated, an elite that was very much 'landed' and Anglican. From 1740, half of all MPs were Oxford or Cambridge graduates; by 1820 it was 60% (Anderson, 1995, p. 22), and around three-quarters of Oxbridge graduates entered the Church (Curthoys, 1997, p. 482). Very few Oxbridge graduates entered the professions or the civil service in the early decades of the nineteenth century.

Through the eighteenth century the old universities had become progressively more moribund. Edward Gibbon only lasted fourteen months at Oxford in the early 1750s, the 'most idle and unprofitable' of his whole life, before fleeing Magdalen College and its fellows 'steeped in port and prejudice' (1984, p. 76, 143). Student numbers had fallen from roughly 3000 in 1700 to half that by 1800 (Anderson, 2006, p. 17). After a brief surge in admissions after the Napoleonic War (Sutherland, 1990, p. 138), the annual intake stagnated during the second quarter of the 19th century (Sanderson, 1983, p. 41). The old universities seemed beset by intellectual and social parochialism. Lord John Russell (1792-1878) claimed he was sent to Edinburgh University in 1809 by a father who thought "nothing was learned in the English universities" (as cited in Sutherland, 1990, p. 140). Oxford and Cambridge would muddle along until large-scale reform appeared unavoidable. One reason Oxford and Cambridge carried on as before was that other forms of education were available. More modern subjects like engineering were taught at the Scottish universities; there was, too, still an apprenticeship system where young men learnt a trade. The narrow curricula at Oxford and Cambridge initially failed to entice the new industrial middle-class, as did the expense, both financial and moral, of a seemingly idle and feckless college life.

The poet Thomas Campbell was among the campaigners for a new sort of university, more in line with changing times: "a great London University [for] multifariously teaching, examining, exercising, and rewarding with honors in the liberal arts and sciences, the youth of our middling rich people" (as cited in Searby, 1997, p. 427).

The University of London (1828) renamed University College London in 1836, imposed no religious tests on its students and was not residential. The Church of England vilified it as the “godless institution of Gower Street” (as cited in Searby, 1997, p. 428). Its wide curriculum was more professionally focused, for careers in law and medicine, for instance. Lectures formed the basis of teaching, with professors paid directly from comparatively low tuition fees, starting at £22 per annum (Searby, 1997, p. 428). The more Anglican, King’s College (1831) and Durham (1832) followed. These two institutions offered wider curricula than Oxford or Cambridge, and while attendance at Anglican prayers was obligatory, King’s placed great stress on its medical school and Durham its engineering school. In 1845 Robert Peel’s government founded new universities in Belfast, Cork, and Galway to rival the older Trinity College, Dublin, in its day modelled on Cambridge. The new colleges offered a broad curriculum to students paying relatively low tuition fees (£28 for a three-year course). The non-denominational Owens College Manchester, the heart of a more industrial and entrepreneurial England, was founded in 1851.

As society industrialized and expanded - by 1831 Britain’s population had effectively doubled over a 50-year period (Hilton, 2006, p. 6) - what propelled the founding of the new universities was the idea of ‘utility’. Richard Edgeworth’s *Essays in Professional Education* (1809) stressed the practical usefulness of university teaching, that a broader range of subjects on the university curriculum addressed the needs of the wider society more fully. Teaching at the old universities had grown stale and complacent, encouraging professors to stick to traditional subjects and methods. “Nobody doubts,” Edgeworth stated, “that there are parts of most college courses, which are useless in the business of the world, and ridiculous in the present state of society, but which gothic custom has retained.” (as cited in Evans, 2010, p. 260). The review of Edgeworth’s book in the *Edinburgh Review* underlined the need for a refined idea of utility: classics may be useful for cultivating those aristocrats and gentry entering ‘society’ but of equal value were disciplines with a more obvious vocational emphasis: “We should not care whether he were chemist, naturalist, or scholar, because we know it to be as necessary that matter should be studied, and subdued to the use of man, as that taste should be gratified, and imagination inflamed” (cited in Evans, 2010, p. 262). As Edgeworth himself put it, “the value of all education must ultimately be decided by its utility” (as cited in Sanderson, 1983, p. 43). An age of reform would soon gather force and reconfigure many of the nation’s institutions. The old universities were not exempt.

There were greater forces both reflecting and shaping the movement towards reform. By the mid-nineteenth century Britain was a fully-fledged industrial nation. The provinces could no longer be ignored; Birmingham and Sheffield, for example, doubled in size by the 1830s, whereas Manchester, Liverpool, and Leeds grew even more impressively (Thomson, 1991, p.12). The following decades saw continued urban growth, Bradford, for example, had grown from 13,000 to 104,000 from 1801-1851 (Hilton, 2006, p. 6). Anglicanism still threaded its way through institutions, education and public discourse, but the diversity of 19th century Christian belief was self-evident. The repeal of the Test and Corporation Acts in 1828 extended the civil liberties of Dissenters, and the Catholic Emancipation Act of 1833 had allowed Catholics into parliament, although both bills were more symbolic than substantive. Economically, the Poor Law Act of 1834 treated the poor extremely harshly, storing up discontent through the next decade. Politically, the 1832 Great Reform Act had

extended the franchise to certain sections of the middle classes and done away with many electoral absurdities, but 82% of the adult-male population was still excluded. Entry to the civil service and commissions in the army were down to patronage and money. Change had been uneven and gradual during the early nineteenth century. The decades after Waterloo were a restive period of riots, agricultural distress and financial crises. The agrarian and industrial revolutions were proving both wonderful and worrying in their impact. The late eighteenth century had unleashed new political ideas and demands that continued to inspire some, and trouble others. Worrying unrest was evident as parliamentary reform was debated during 1830-32, and after, with Chartism simmering throughout the 'hungry forties'. As mid century approached the need for reform of some sort, however unsettling, now seemed unavoidable, even desirable.

This period of political instability eventually encouraged the State to adjust to and accommodate such forces when pressed (Hewitt, 2012, p. 10). There emerged during the mid-nineteenth century a will among politicians, intellectuals, philanthropists and others to improve society for all. Britain was still a country of vast inequalities of wealth, education, and opportunity, and one beset with social problems like prostitution and crime, poor public health and housing. Pursuing reform, of politics, law, public sanitation, and education was cast as a noble endeavour (Heffer, 2013). Public education was indeed a pressing matter as Britain edged towards a wider franchise. Not far behind was the issue of elite education; an industrial nation needed an elite, but was the existing elite still the right one, and, if not, who exactly should be admitted?

Britain was changing, radically and irreversibly, but the desire was not to reconfigure the two old universities as tools of democratic social engineering. They would still be required to educate an elite. The composition and role of the elite was changing, however. It was necessary for the two old universities to turn out a more useful aristocracy to the changing demands of an industrial nation. The reform was not led by Oxford and Cambridge. As Lord Melbourne reminded the House of Lords in 1837, "Universities never reform themselves: everyone knows that" (as cited in Brock & Curthoys, 1997, p. 145). Nor was reform dictated by the state. It came through compromise and collaboration between those within and outside of the universities. Like other institutional adjustments in mid-nineteenth century Britain, Oxbridge adapted to new demands rather than radically overhauled existing practices. As the nation became more industrial and democratic its institutions needed to reflect this change - and exploit it for the greater good of the nation.

When Prince Albert, consort to Queen Victoria, was made chancellor at Cambridge in 1847, he was keen to apply his well-known zeal for reform to the old university. Albert was mystified at the narrowness of the Cambridge curriculum and the lack of rigour among masters and students, and was eager to introduce more practical modern subjects like those taught at the German universities (Heffer 2013, p. 446). William Whewell of Trinity College shared Albert's desire for a broader curriculum that included "some of the most valuable portions of modern science and literature" (as cited in Heffer, 2013, p. 446). Whewell, however, did not share Albert's desire for immediate reform, proposing a brake on teaching new scientific theories of 100 years in order to test their validity (Heffer, 2013, p. 447). Prince Albert found more willing allies in vice-chancellor Robert Phelps and Henry Philpott. In 1848 the Senate

approved the establishing of a degree in natural sciences, and one for the moral sciences (history, law, political economy and moral philosophy), together with a new mathematics degree. Oxford established schools of natural science, law and history in 1850; the following year degrees in natural science and modern science were introduced at Cambridge. The expanding curriculum meant more teachers were required, at Oxford a 40% increase from 1845-1858 (Harvie, 1997). Until 1866 the new schools were exclusively for students who had graduated from 'Greats'. Laboratories were also established: the Oxford Museum in 1855, the New Museum at Cambridge in 1865 and the Cavendish Laboratory in 1871. Despite this, an increase in the numbers enrolling in the new subjects took time.

This limited internal reform was the start of greater reforms as pressure from outside exerted itself. In 1852 Royal Commissions examined the state of the two old universities. Lord John Russell pinpointed the aim of reform, to ensure good feeling among the wider Victorian society “by opening easy means of transition for the promising youth of one class to rise into another” (as cited in Evans, 2010, p. 302). The Commissions led to Acts of Parliament for Oxford in 1854 and Cambridge in 1856. These Acts allowed non-conformists to enroll on degree courses - but not ones in theology - by abolishing the need to sign the Thirty-Nine Articles. Oxford freshman had to affirm their belief in the Anglican creed by signing this document outlining the doctrine of the Church of England. Oxford and Cambridge fellows, too, were expected to be ordained soon after taking up their appointment, and were also to remain celibate. The Acts of the 1850s did away with an important impediment to widening access to old universities and with it, rejuvenating an elite so that it was more in tune with the changing times. Matters of faith within the college walls seemed increasingly petty and insignificant given that revolution was sweeping through Europe in 1848, bringing social and political issues dramatically to the fore that had simmered through the 1840s. The railway had reached Cambridge by 1845, allowing more contact with London and the wider world (Harvie, 1976, p.33), chipping away at the parochialism of the port-soaked dons. Looking back on the period, Goldwin Smith, Oxford don and secretary to the Commission, saw in the move to reform the Oxford a desire “to strike off the fetters of medieval statutes from it and from its Colleges, set it free from the predominance of ecclesiasticism, recall it to its proper work, and restore it to the nation” (Heffer, 2013, p. 448).

There were some who thought such changes did not go far enough. The two old universities had clearly forgotten how and why they were founded so many centuries past. Charles Kingsley reminded his contemporaries of how inclusive Oxford and Cambridge once were: “the Universities were not founded exclusively, or even primarily, for our own class; that the great mass of students in the middle ages were drawn from the lower classes” and relied on scholarships and bursaries expressly designed for them Kingsley also pointed out that it was from the late medieval period, that higher-born sons, exploiting their clear advantages, secured the scholarships originally designed for boys of humbler origins. “Does not the increased civilization and education of the working classes call on the Universities to consider they may now not try to become, what certainly they were meant to be, places of learning and training for genius of every rank, and not merely for that of young gentlemen?” (as cited in Heffer, 2013, p.210, 211). Mark Pattison, a key reformer within Oxford, reminded the Royal Commission assessing the university in 1850 that their goal should be “opening up the University to the Nation and the world,” allowing Oxford

to “strike its roots freely into the subsoil of society, and draw from it new elements of life, and sustenance of mental and moral power” (as cited in Anderson, 2006, p. 36-7). This was not quite the consequence most had in mind.

Another obstacle to an expanded Oxbridge-educated elite was the barring of non-Anglicans from becoming fellows, and the insistence that only students who signed the Thirty-nine Articles could receive Masters degrees, prizes and distinctions. This was an increasing anomaly as religious belief was waning among Anglicans, and Nonconformists had become a significant presence in provincial towns and cities. Some warned that if the old universities admitted Nonconformists through the University Tests Bill this would adversely affect the teaching of religion; and anyway, had not such people done well from being excluded, science was in rude health as such people were steered away from Oxford and Cambridge. Others worried that meddling in this issue would eventually lead to disestablishment of the Church of England and the repeal of the Act of Uniformity (Heffer, 2013, p. 501). The Universities Religious Tests Act of 1871 was initially rejected by the Lords in 1870, but was then amended and passed by 40 votes. As TH Huxley, newly appointed Rector of University of Aberdeen, declared in 1874, “Change is in the air...It insists on reopening all questions and asking all institutions, however venerable, by what right they exist” (as cited in Evans, 2010, p. 310). The ending of the religious tests would lead to a greater separation of intellectual work from religious belief.¹ As the celibacy rule was removed fellows could marry and consequently perceived their role as more permanent and professional rather than a stopgap before entering the Church (Whyte, 2005, p. 19).

The supplanting of oral exams by uniform written exams was also a significant reform in bringing more utility to an Oxbridge education. In 1780 Cambridge started the Senate House exam, chiefly in mathematics; Oxford began their Public Examination in 1800, mostly in classics with some mathematics. By 1850, written exams were the only means of assessment. Students were initially ranked in numerical order, and then grouped into classes, as now. Teaching focused on examinable subjects, and many students hired private tutors. The class of degree mattered; someone achieving a First was destined for great things (Anderson, 2012, p. 485). The value of examinations and the need for professionalization was evident elsewhere. The civil service reforms of 1855 and 1870 established an exam as the means of entry to replace the system of nomination that had existed. The 1853 Northcote-Trevelyan report sought to establish competitive exams and promotion through merit, as well as a separation of ‘intellectual’ and ‘mechanical’ jobs. The Civil Service exams were a sign of growing professionalization of British society - that personal qualities in a more professional age should trump personal connections (Reader, 1966). Of course, patronage and nepotism still operated. Yet for aspiring middle-class families an Oxbridge education served as a springboard to social and professional advancement - to make the right connections but also to learn the right things. A closer partnership formed between a reformed Oxbridge and a reformed government service. The 1853 report’s recommendations were first applied to the Indian Civil Service. The exams were college level and garnered great prestige among parents and peers. As Gladstone

¹ The end of religious tests did not mean an end of religious observance at the two old universities. However halfhearted it may have been in practice, many colleges insisted on chapel attendance for Anglican students up until the 1930s; and new colleges were founded to train Anglicans for the clergy, like Selwyn College and Keble College (Anderson 1995, p. 46).

stated when MP for Oxford University, the emphasis on an intellectual stream of the civil service would “open to the highly educated class a career and give then a command over all the higher parts of the civil service” (as cited in Hoppen, 1998, p. 112). This took time, but by the close of the Victorian era, Oxbridge accounted for 75% of civil service entrants (Curthoys, 1997, p. 496) with the majority coming from professional families (Curthoys & Howarth, 2000, p. 577-78, 496; Brooke, 1993, p. 601-3).

Exams were one way of getting on in the world, and an Oxbridge education was a useful stepping stone to exam success. What also drew increasing numbers of upper middle-class young men to Oxford and Cambridge was the belief that it offered an education in becoming a ‘gentleman’. The desire for status was strong motivation in a society where rank mattered. Contemporaries viewed Victorian society as a viable hierarchical society. Inequality was divinely sanctioned, and the functioning of society relied on the maintenance of social ranks (Cannadine, 1998). As J. S. Mill said, “the very idea of equality is strange and offensive” to the English (as cited in Houghton, 1957, p. 103). The issue surrounding wider reform was how best to preserve the social existing order. One way was to assimilate new social forces within the existing hierarchy. Through an Oxbridge education those of talent could smoothly assimilate into a time-honored, hierarchical society. As Walter Bagehot said, Oxbridge education bestows “...a certain cultivation, certain friendships, certain manners” (as cited in Briggs, 1985, p. 313). In Thackeray’s novel *The History of Pendennis*, the hero’s uncle views Oxbridge as a means of making “his first *entrée* into the world as a gentleman, and take his place with men of good rank and station” (1899, p. 213). Such assimilation would maintain the existing hierarchy rather than threaten it, and serve to head off the revolutionary contagion like that of 1848.

A reinvigorated and expanding public school sector played its part in supplying new Oxbridge men. The nine old public schools² had been reformed in the middle decades, and were joined by a hundred more by the close of the nineteenth century (Honey, 1977), which, whether major or minor, offered an preliminary moulding of gentlemen ‘all-rounders’ through a classics-heavy curriculum, a useful grounding for Oxbridge. The railways and the move to town suburbs gave upper middle-class lawyers, doctors, clergymen, higher-ranked civil servants a less provincial, more outward and aspiring perceptive (Harvie and Matthews, 2000, p. 97) that surely influenced how they chose to educate their sons. Upper middle class boys would invariably go on to Oxbridge, their public school education had made it a natural extension. Oxford undergraduate admissions went from 163 public school boys in 1848/9 to 558 in 1861; Cambridge from 105 to 305 (Honey & Cuthoys, 2000, p. 566). By 1878/9 the Oxford graduating sons of professionals and businessmen outnumbered those of landowners and clergy (Cuthoys and Howarth, 2000, p.578).

It was not just the sons of professionals that entered Oxbridge The new wealth of the manufacturing middle-class allowed their sons to be educated in public schools. Fed on a diet of classics and sport, many were steered away from the entrepreneurialism of their fathers who had made Britain the workshop of the world (Harvie and Matthews, 2000, p. 97-98). Some went into public affairs, like William Gladstone,

² Eton, Winchester, Harrow, Charterhouse, Rugby, Westminster, Merchant Taylors, St Pauls, Shrewsbury.

son of a Liverpool merchant, had done a generation earlier. Others chose careers in commerce and banking. By the late nineteenth century, as the USA and Germany emerged as major forces, Britain's continued preeminence was looking more uncertain, a situation allegedly speeded up by the neglect of - or downright hostility to - the values of business and industrialism bred in the public schools and old universities (Weiner, 1981). Character was what mattered.

It is mistaken to assume the old aristocratic order relinquished power. Cannadine (1994) states that the old aristocracy survived difficult times through shifting from agriculture into property investments, as titled directors of railways, and marriage to new (often foreign) money. What the opening up of Oxbridge represents is part of a profound process whereby the old aristocratic order sought to assimilate their emerging rivals into a wider elite (Best 1971, p. 254), to ward off potential discontent within this class. Better that their energies be channelled within the establishment rather than outside of it. This widening of the elite did not yet diminish the prestige of traditional hereditary power. Lineage and titles, the basis of aristocratic authority and the source of deference for centuries, were not yet questioned (Cannadine, 1994). Widening access to the old universities encouraged deference towards men more clearly of the new industrial age rather than those with land and titles. A reformed Oxbridge was instrumental in creating a new 'urban gentry'. These mid- to late nineteenth century Oxbridge men were not merely gentlemen, but gentlemen of such obvious *quality* of character and attribute - of resolution, tenacity, and vigour - that a comparable level of deference was generally given by Victorian society (Best 1971, p. 256).

It was hoped that the new university men would also take on the widening responsibilities and not just the manners of an elite. As Britain urbanised and government modernized and expanded, society was becoming more complex and less self-regulating than before. A need grew for a wider, more professional elite for the fledgling modern administrative state. Georgian Britain had relied on religion, deference and war to bind society together. In the rapidly changing society of the nineteenth century, fear and doubt were ever-present, that the new industrialized world would outstrip the Victorians' ability to control it. An expanding 'intellectual aristocracy' able to take on the responsibility and leadership vital to a changing nation was the answer. Oxbridge produced good 'generalists', graduates, John Henry Newman claimed, who could "fill any post with credit and master any subject with facility" (as cited in Sanderson, 1983, p. 44). Foreign visitors to Britain in the mid-nineteenth century were often struck by the elevated tone of public affairs that ensured "the widest and richest field for the appearance of men of the highest talents and character" (as cited in Langford, 1999, p.118). The education the new upper middle class intake received at Oxbridge or Cambridge fostered in many a desire to take on the responsibilities of 'men of quality' within a transforming nation. As J. S. Mill declared, it was "the especial duty [of the universities] to send forth into society a succession of minds, not the creatures of their age, but capable of being its improvers and regenerators" (as cited in Briggs, 1985, p. 303). A reformed Oxbridge enabled and encouraged the creation of a functional elite forming "a caste of educated, active citizens: a society of well-meaning gentlemen" (Wythe 2005, p. 23) ready to steer Victorian society away from trouble, and blunt some of its extremes.

The reform process largely benefitted the upper middle-class rather than the poor. True meritocracy still had few adherents in such a long-standing hierarchical society. The goal for the mid-Victorian generation, as FML Thompson underlines, was “fashioning the elements of a new society in step with the appearance of its material and human components” (1988, p. 29). Compromise and adaption were the guiding themes. The reform of Oxford and Cambridge enabled the emergence of a more functional elite – but an elite nonetheless – one that combined the traditional aristocratic value of patrician duty with an earnest desire to actively improve the national community, one that was both more urban, industrial and democratic. What the mid-nineteenth century reform of Oxford and Cambridge represents, and what makes it characteristically Victorian, is a successful attempt at reconciling forces of continuity with discontinuity, in adjusting elite institutions to new demands.



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Challenges of Language Education in Post-Colonial Contexts

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Abstract

Many post-colonial contexts are dealing with dated infrastructures inherited from their colonial past. The education system is one of them, and while reforms seem necessary, many key players remain opposed. A major flaw in the education system is its curriculum, entirely offered in a standard language (English, Spanish, French) while students often speak a different language (notably Creole) at home. Students who cannot speak the standard language are at a disadvantage in an ill-adapted school system and face social and linguistic challenges that impede them from being successful first in their studies, and later on the job market. Teachers hold prejudice against Creole and are poorly equipped to support their students. For these reasons, there is an urgent need to legitimise Creole and minority languages in the classroom and to transmit the message to parents and educators about the possible benefits, such as providing a framework for students on which they can build their second language. Moreover, resources must be built to support teachers throughout the implementation of such major reform. This paper will attempt to make recommendations to change the current situation that puts entire populations at a disadvantage through a maladapted education system.

Keywords: language education, second language education, post-colonial, Creole, education reform

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Introduction – Context

In this paper, the term “standard language” will refer to dominant varieties of languages, such as British and American Englishes. The term “standard” is used for lack of a better word, and by no means implies superiority over any dialect or Creole.

Colonialism might seem a thing of the past for populations who were not involved or who benefitted from it. However, many former colonies are still trying to make do with the aftermath, hesitant between reforms and stability. While some colonisers might have built durable infrastructures in their colonies, the goal of these investments was most likely mercantilism, with little to no respect for the local inhabitants and their culture. Many of these infrastructures are now outdated, and some were never adjusted to the local context, to start with. For these reasons, even today populations of former colonies are understandably reluctant to major changes brought from abroad or initiated by their own government, which often collaborated with (or was controlled by) the colonisers. It would be a mistake to think of all former colonies as identical; however, if similarities can be deduced from current situations, then perhaps some solutions could be applied to more than one context.

Currently, many former colonies face a similar challenge in their development; there is a desire for a strong, independent identity, while at the same time they benefit from (or rely on) the former mother country for support and economic opportunities. Since there are important differences between the local context and the ideal of standardisation symbolised by the former Metropolitan state, the infrastructures in place contain several inadequacies. An important manifestation of this situation is the education system, and language education in particular. The system needs to undergo major changes; however, several obstacles must be overcome in order to make it possible to amend the system already in place.

Education and Democracy

The infrastructure that seems to be at the origin of several issues in former colonies is the education system. Often a legacy of the colonial era, perhaps implemented without much consideration for the local educational needs and objectives, it often is a close copy of the system of the former Mother country, and continues today to keep its students at a disadvantage. Education is usually given in the standard variety of a language (i.e. British or American English), while the local population might speak a Creole or another language at home (Siegel, 2007). Students therefore need to learn the standard variety of a language in order to be successful in their studies (and later, in the job market). This has catastrophic consequences for children who cannot learn this second language adequately since all the subjects are taught in it. Koskinen (2010) goes as far as calling French-only policies in Haiti “linguistic apartheid”, as the system “successfully” keeps lower social groups from accessing higher education or any position of power. Since Creole has no legal value (p.389), all official documents must be written in French (or English, Spanish, etc., depending on the country). This means that Creole monolingual speakers encounter great difficulties to access the judiciary system (laws, individual rights, etc.), cannot communicate with or easily understand any levels of government (election campaigns, town meetings, etc.), and might not fully understand important documents such as lease agreements, bank loans, employment contracts, etc. Language education is therefore directly linked to

power and social status. Being part of the main cultural group in a former colony does not grant access to power or opportunities; it is about being fluent in a standard language brought by the former coloniser. A country might have gained its independence and become democratic, but the power is still held by a minority that does not represent the population, linguistically and culturally.

Teachers Attitudes

Since Creole does not have its place in the curriculum, Creole speakers are not always welcome to use it in class, especially when addressing a teacher. Students who speak Creole at school face negative attitudes and ignorance of teachers who perceive Creole as inferior or as an imperfect version of the standard language (Wigglesworth & Billington 2013; Siegel, 2007, 1999; Farr & Song, 2011). As teachers are former students who were successful in the actual education system, it can be assumed that they are fluent speakers of a standard variety of a language. Therefore, students and teachers come from different social groups, which does not help to suppress prejudice. Wigglesworth & Billington have observed that some teachers go as far as interpreting Creole grammar and pronunciation as errors in the standard language, and constantly interrupt students with corrections (2013), as if the students were unsuccessfully trying to speak the standard language. As a result, children's identity and sense of belonging suffer from low self-esteem because of the denigration of their language and culture (Wigglesworth, Billington & Loakes, 2013; Farr & Song, 2011; Migge, Léglise & Bartens, 2010; Koskinen, 2010). In the end, students might rebel against the cultural group that speaks the standard language, and refuse to learn it (Delpit, 2006; Green, 2002). Failure to identify with the target culture and experiencing negative emotions during class could have harmful consequences, as it will impede their second language acquisition, as per Krashen's Affective Filter Hypothesis (1982).

Linguistic Challenges

In addition to these negative perceptions of Creole, many problems remain because educators fail to see the need for bilingual or second language education. Classes are taught in standard forms of languages, without any support for Creole speakers. If the teachers do not have linguistic knowledge of the local dialect or Creole, then they are not equipped to support their students. Moreover, if students do not receive formal education in their mother language, they will lack basic literacy skills and language awareness. Without any knowledge of grammar, sentence structure, etc. in their first language, the second language does not have any solid framework to be built on (Malcolm, 2011, p.270) and students will keep permanent gaps in both languages (Polinsky & Kagan, 2007). Creole speakers start at a disadvantage since Creoles typically do not have a standard orthography, as the word itself can be written Creole, Kréol, Kreyol, Kreyòl, Kweyol, Kriol, Krio, etc. (Siegel, 2007, 1999). Many students are not even aware if they speak English, Creole, Spanish, etc., or if they are mixing them (Devonish & Carpenter, 2007, p.290), which can result not only in high degrees of interference between similar varieties (Ellis, 1994, p.102), but also costly errors during high stakes tests such as standardised exams prepared by the Ministry of Education, or entrance exams to high schools, universities, and pre-employment screening tests (Wigglesworth & Billington, 2013).

In contexts where all first grade elementary school students are monolingual Creole speakers, teaching non-language classes such as math, geography, etc. strictly in the standard language without scaffolding cannot possibly be beneficial for the learners. In an effort to support Creole speakers, a few countries have tried to integrate bilingual programs into their curriculum. The results have been positive (Farr & Song, 2011), although empirical studies warn us that programs such as linguistic immersions are difficult to assess quickly because children need to be in such environment for at least five to seven years before it becomes realistically possible to measure their benefits (Cummins & Hornberger, 2010). The current situation in Creole contexts is not a formal, controlled linguistic immersion; rather, it is more of a linguistic *submersion*, where students must “sink or swim”. If they cannot learn the second language on their own, they will fall behind and will never catch up with the curriculum. In the United States, the Supreme Court ruled in favour of Chinese American students in *Lau v. Nichols* (1974) that the submersion approach violated the Civil Rights Act as it discriminated them based on their national origin and inability to speak English¹. Unfortunately, there is little chance for this to happen in countries with a majority of Creole speakers because the argument of “national origin” could not be used for people who were born in the same country, and monolingual Creole speakers do not have access to the judiciary system easily, as previously stated.

Reforms vs. Public Opinion

If legitimising Creole as a way of communicating in the classroom and teaching basic similarities and differences with the standard variety could be solutions to provide support for Creole-speaking children, attempts to reform the education system have met their fair share of resistance. Surprisingly, Creole speakers themselves are opposed to a reform of the curriculum to include Creole. In fact, this negative attitude of Creole speakers toward Creole language is shared among many post-colonial contexts (Wigglesworth, Billington & Loakes, 2013; Koskinen, 2010; Devonish & Carpenter, 2007; Simmons-McDonald, 2004). Parents and grandparents, who remember being discriminated against during the colonial era, perhaps perceive the reform to include Creole as an attempt from the government to control them and compromise their future chances of success by keeping them from accessing higher echelons of power in the society. Combined with the preconceived negative opinions that some teachers hold against Creole, even if reforms are decided at the governmental level (Ministry of Education), sometimes with the help of renowned international educators, there is no guarantee that those changes will actually be welcomed and successfully implemented in all schools of a country.

What Can Be Done

If both teachers and parents are opposed to change, the situation might seem desperate. Admittedly, they are the ones interacting with children daily, while researchers or bureaucrats from the Ministry of Education might not frequently visit schools to see what the situation in the classrooms actually is. If reforms decided by the government do not become reality, it is partly because a population that has been abused by years of colonialism cannot trust its government or any high (or foreign) authority easily. There is a need to connect with the population to re-establish trust.

¹ *Lau v. Nichols*, 414 US 563 - Supreme Court 1974.

According to Professor Jeff Siegel of the University of New England, Australia, running public awareness campaigns must be a top priority for the future (1999). Connecting with parents and the general population to explain how changes can benefit them directly is a first step towards acceptance. Again, Siegel (2007) recommends that the public be informed of the findings of sociolinguistics “since awareness of such research over the past 40 year has not trickled down to the general public” (p.80). Publishing studies in academic journals that are read by experts in the field has no chance to reach the general population. Additionally, the information needs to be explained in terms that everybody can understand, and in a language that can be understood by the majority, meaning Creole, in some countries. Publishing information in a language that only the elite minority of a population can fully understand would bring us back to the purpose of this article. If new school programs are implemented without a proper public explanation of the benefits, public antipathy is more likely to remain (Wigglesworth, Billington & Loakes, 2013; Koskinen, 2010; Rickford, 2006), and the lack of success of said program will only confirm and reinforce the prejudice that the objectors were holding in the first place.

Next, teacher training needs to be reformed in order to change the old mentality of negative attitudes toward Creole languages. Educators need to be taught about the history of the Creole or dialect that their students speak, along with some basic sociolinguistics to understand not only the similarities and differences between the Creole and the standard language, but also the origin of this Creole and the culture that is attached to it (Farr & Song, 2011; Koskinen, 2010; Devonish & Carpenter, 2007). No educators can reasonably ask their students to part with their cultural identity. An obvious way to embrace Creole and its culture is by legitimising it in the classroom through story-telling, music, literature, students experience, guest speakers, history classes, etc. (Siegel, 1999; Roberts, 1994). Including rather than discarding the students’ background will give them a sense of belonging and provide a framework to build upon rather than starting from zero. Additionally, student’s motivation will most likely increase if they receive any support from their teachers instead of the usual denigration.

Subsequently, the next step is to develop teacher resources to support educators in this reform to legitimise Creole. Many successful stories around the globe can become source of inspiration for countries that want to initiate those changes. Notably, Jamaica and Australia have integrated minority languages into their curriculum, as reported by Prof Siegel in his hopeful update of the situation on Creoles and minority dialects in education (2007, p.69):

The CAPE syllabus ‘Communication Studies’ in Jamaican high schools includes a ‘Language and Society’ module that focuses on the linguistic situations in Caribbean countries and their historical background, as well as on aspects of the grammar of Creole vernaculars as compared to English (Kouwenberg, 2002).

In Western Australia, the 'Two-way English' programme for students who speak Aboriginal English has been further developed (Malcolm *et al.*, 1999). This programme recognises and explores cultural and linguistic differences as a rich educational opportunity for both teachers and students (Cahill, 2000; Western Australia Department of Education, 2002).

However, no matter how successful the program in Jamaican high schools is, it might come too late in the curriculum to make effective changes in its population's perception of Creole language, or to support Creole speakers who attend school in their second language. Denigration of Creole speakers starts from day one, at the elementary school level, at the same time that students have to keep up with the new language and the content in different subjects. Integrating Creole languages from the beginning of the school system would be a better solution. Admittedly, the article does not mention if children are welcome to use Creole to communicate in class since the elementary level. As for the program in Australia, the situation might differ a little from other former colonies, since speakers of Aboriginal English are not the majority in their country, as opposed to Haiti or the Seychelles, for example, where speakers of the "standard" variety are a minority.

Recommendations

Reforming the education system and informing the public about the benefits of such reform are necessary to give every student a fair chance at accessing quality education. However, these changes will not be possible if they are done through a strictly top-down approach. It is necessary that as many people as possible get informed and involved, including principals, teachers, parents, etc. Teachers of course play a key role, but reaching a majority of teachers is not a simple task, especially in contexts where a university degree is not required to teach at the elementary or secondary levels. This means that publishing articles in academic journals would not reach them, for example. Reforming formal teacher training at the university level, also, would not reach every educator, and therefore would not make any major difference on the ground for years. There is a need to use non-technical terms and to provide workshops adapted to local situations to in-service teachers, and to visit schools frequently. Teachers need continuous support, especially for issues that will emerge after the first steps of the reform. If support is not provided beyond the initial phase, they are more likely to give up after a few unfruitful attempts.

As change should come both from the top and the bottom to involve all the different layers of a society, there is a need to empower the local people through their culture and languages. Countries with a colonial past have been in situations when decisions affecting the life of their populations were taken by the coloniser without consulting locally beforehand. Therefore, repeating this mistake would not help to reduce public antipathy towards change. Parents need to be consulted as well, not only informed of the decision taken by the Ministry of Education, or foreign experts, or after it has already been implemented. The more the local people will be involved, the more they will understand that those changes will benefit them; if they own the changes, they will support them.

Finally, many former colonies should work on strengthening ties with bordering countries. Former Metropolitan states such as France or the United Kingdom are still too often the major provider of economic opportunities. Diversifying their economy and developing alliances can only be beneficial for neighbouring countries in long terms, and would avoid a brain drain that would have a disastrous impact on the local economy. Local economical opportunities would also give the population a legitimate reason to welcome a focus on local languages in their education system.

Conclusion

Legitimising Creole in class and giving value to the students' culture are basic ways of overcoming the disadvantages faced by students who do not speak the standard variety of a language used in the school system. Awareness programmes for teachers, administrators, and the general population (especially parents) are necessary to change persistent negative beliefs, but even those programmes are not yet accepted as valid by everyone. A proactive approach to contact the population directly to inform them not only of the results of research but also of the positive consequences of such programs can make a difference. Any awareness program will have a better impact if the information is shared among local people rather than from the government, or even worst, from foreign experts. A team of foreigners telling the local population what is better for them without much consultation or local expertise would be repeating the mistakes of the colonial past, and this is what former colonies must be careful to avoid. They must see their own potential not through the eyes of a coloniser, but in a way to turn it to their advantage and give their population a better chance of success.

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The logo for the International Association for Applied Linguistics (iafor) is centered on the page. It features the word "iafor" in a light blue, lowercase, sans-serif font. The text is enclosed within a circular graphic composed of two concentric, slightly irregular arcs. The outer arc is a light blue color, and the inner arc is a light red color, creating a ring-like effect around the text.



***School Bullying: Its Influences on Academic Performance
of the Basic Education Students***

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The Asian Conference on Education 2016
Official Conference Proceedings

Abstract

Bullying has already been a pervasive problem across Asia. It has been noticed as a school nuisance causing harm to students that can potentially affect their physical and psychological conditions. Most of its victims are powerless and taciturn. As observed, students who are bullied cannot concentrate well in the class. The grades may be a basis or a sign that one is bullied. At first, they just hide the pain they feel. But later, they make excuses, alibis, and complains just to get out of the school. As a result, the students have missed a lot of school which can affect their academic standing. On the contrary, some students become bully at school because they might being bullied at home or in other place. A bullied student, may, at the demand of his own bully become a bully to another person.

In the light of the foregoing, this research paper is aimed at determining the bullying behaviors of the basic education students as well as its effects on their academic performance. It has the end view of creating a school bullying preventive program which is of big help in battling against the issue. It provides creative solutions which address the needs of the administrators, teachers, parents, bully, and bullied students, thereby, creating a safe and sound school environment.

Keywords: School Bullying, Bullying Behaviors, Bullying Preventive Program

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Introduction

School is a provider of formal education. This is the place designed for the students to experience diverse learning opportunities which provide them the foundation skills and basic knowledge. The acquisition and utilization of these essential tools enable them to prepare for a successful and independent adult. Thus, school plays a vital and critical role to the holistic development of an individual. In the long run, the outcome of this basic learning ascertains their opportunity for getting promoted to a higher educational ladder or their ground to remain in a certain learning stage. As such, it is imperative to understand the underlying factors which can influence the quality of education and learning it provides to the students.

Bullying is a widespread problem in most schools. It has been noticed as a school nuisance causing harm to the students. As cited by Ancho and Park (2013), in the Philippines a survey was conducted which revealed that bullying or abuse is experienced by one in two Filipino school children. This statistics is backed up by a report in an Australian newspaper involving 117,000 nine-year old from 25 different countries, stating that 50 percent of Filipino students are being bullied in schools. Also, Lai (2008) has affirmed that students in the Philippines had led the record of different types of bullying, which include being “made fun of or being called names,” “left out of activities by others,” and “made to do things the student did not want to.”

The impacts of school bullying have threatened the school life of the students. It impinges their academic standing which is actually at risk. The report of Plan International quoted by Jan (2015) finds that bullying is common in schools throughout the world and that bullied students often develop concentration problems and learning difficulties. It is a form of social interaction that many school children experience. Barrington (2016) cited a certain study in the University of California, Los Angeles (UCLA) that bullying and low academic achievement are frequently linked. It was mentioned that students who are repeatedly bullied receive poorer grades and participate less in class discussions. Students may get mislabelled as low achievers because they do not want to speak up in class for fear of getting bullied. Moreover, findings of the study of de Lara et.al (2012) on the effects of school bullying reveal that affected students have loss of interest in school and extra-curricular activities, frequent complaints of illness to avoid attending school, sudden decrease in academic performance, and afraid of taking part in organized activities with peers. This is further supported by another study made by Gonzaga et.al (2013) in which they have found that bullying can compromise the academic performance of the students as early as elementary years. Students suffer from academic difficulties due to emotional distress. Also, they have quoted that peer victimization increases the risk of lower achievement and there is a gradual decrease in one academic subject. These scenarios show that those who directly and indirectly involved in bullying are at increased risk of misbehavior, abuse, and absenteeism from school. Thus, bullying creates barrier to learning with negative outcomes on part of both students and institutions (Jan, 2015).

Due to its rampancy, the researcher was motivated to do a certain investigation in his institution since no studies have been made about the said issue. And so, this research undertaking was conducted in order to determine the influences of school bullying on the academic performance of the basic education students. It has the end view of

coming up with a certain school preventive program that can battle against school bullying.

Research Questions

This study was conducted in order to determine the influences of school bullying on the academic performance of the basic education students in Dr. Carlos S. Lanting College during the School Year 2016-2017.

Specifically, this sought to answer the following questions:

1. What is the profile of the student-respondents in terms of:
 - 1.1. age;
 - 1.2. sex;
 - 1.3. birth rank;
 - 1.4. grade level;
 - 1.5. status of parents;
 - 1.6. family income; and
 - 1.7. self-esteem?
2. What bullying behavior is being exhibited by basic education students as perceived by teachers and students themselves in relation to:
 - 2.1. physical bullying;
 - 2.2. verbal bullying;
 - 2.3. psychological/emotional bullying; and
 - 2.4. cyber bullying?
3. Is there a significant relationship between the profile and the bullying behaviors of the student-respondents?
4. What are the causes of bullying behaviors as perceived by teachers and students as to:
 - 4.1. physical factors;
 - 4.2. sociological factors; and
 - 4.3. psychological/emotional factors?
5. What influences does school bullying have on students' academic performance?
6. Is there a significant relationship between the bullying behaviors and their influences on the academic performance of the basic education students?
7. Are there significant differences in the perception of teachers and students with regard to:
 - 7.1. exhibited bullying behaviors;
 - 7.2. causes of bullying behaviors; and
 - 7.3. influences of school bullying on students' academic performance?
8. What school bullying preventive program can be proposed?

Methodology

Research Design

The study employed the descriptive-survey research design which aimed at describing the nature of a situation as it exists at the time of the study and exploring the causes of a particular phenomenon. It is concerned with conditions of relationships that exist,

practices that prevail, beliefs, processes that are going on, effects that are being felt, or trends that are developing (Calmorin & Calmorin, 2007).

Population and Sample

The selection of respondents was made through a random sampling technique which individual was chosen entirely by chance and each member of the population had an equal chance of being included in the sample. The respondents were taken from Grade 5-6 Levels (Primary), Grade 7-10 Levels (Junior High), and Grade 11 Level (Senior High). They were grouped into two: the student-respondents and teacher-respondents. Table 1 displays the frequency and percentage distribution of the respondents involved in this study.

Table1. Frequency and Percentage Distribution of the Respondents of the Study

Classification	Frequency	Percent
Teacher	36	10.3
Student	312	89.7
Total	348	100.0

The table above shows the frequency and percentage distribution of the respondents study. It can be gleaned that there were 36 (10.3%) basic education teachers and 312 (89.7%) basic education students. The table further suggests an approximated teacher-student ratio of 1:9.

Instrumentation

This study used a structured questionnaire. It served as the main instrument in gathering the needed data and information in this study. There were 2 sets of questionnaire, one set for the student-respondents while the other one for the teacher-respondents. The instrument for the student-respondents composed of five parts. Part I displayed the profile of the respondents such as age, sex, birth rank, grade level, status of parents, and family income. In determining the self-esteem of the students, Part II adapted the Rosenberg Self-Esteem Scale which 10 items were answered on a 4-point scale, to wit:

- 4 - Strong Agree (SA)
- 3 - Agree (A)
- 2 - Disagree (D)
- 1 - Strongly Disagree (SD)

Part III depicted the questions on the bullying behaviors exhibited by basic education students in terms of physical bullying, verbal bullying, psychological/emotional bullying, and cyber bullying using the 5-point rating scale:

- 5 - Always (A)
- 4 - Often (O)
- 3 - Sometimes (S)
- 2 - Rarely (R)
- 1 - Nothing (N)

There were 10 items for physical, verbal bullying, psychological/emotional and cyber bullying.

Part IV identified the causes of bullying behaviors as to physical factors, sociological factors, and psychological/emotional factors. A 5-point rating scale was used, to wit:

- | | | | |
|---|---|------------|-----|
| 5 | - | Extremely | (E) |
| 4 | - | Very | (V) |
| 3 | - | Quite | (Q) |
| 2 | - | Almost | (A) |
| 1 | - | Not at all | (N) |

Part V elicited the information about the influences of school bullying on academic performance of the basic education students using the 5-point Likert's scale:

- | | | | |
|---|---|-------------------|------|
| 5 | - | Strongly Agree | (SA) |
| 4 | - | Agree | (A) |
| 3 | - | Neutral | (N) |
| 2 | - | Disagree | (D) |
| 1 | - | Strongly Disagree | (SD) |

On the part of the teachers, they would just answer the Part III, Part IV, and Part V of the questionnaire. The pieces of information that shared by the respondents were essential in substantiating the purpose of this academic paper.

Validation of the Instrument

To ensure reliability and validity of the instrument used, the researcher subjected the questionnaire to expert validation. He submitted it to the school head, guidance counselor, psychology professor, research director, and psychologist as well. Comments and suggestions were considered for the correction, revision, and improvement of the items stipulated in the questionnaire. After which, he conducted a dry-run and administered the questionnaire among 15 individuals.

After the dry-run, the data were collated and treated with an appropriate statistical measure to determine the reliability and validity of the items. Table 2, Table 3, and Table 4 show the results of the reliability of the questionnaires on the bullying behaviors exhibited by the students and the causes of bullying behaviors.

Table 2. Reliability Table on the Questionnaire on the Bullying Behavior Exhibited by the Basic Education Students

Category	Number of Items	Reliability Coefficient	Interpretation
Physical Bullying	10	0.80	Very Good
Verbal Bullying	10	0.91	Excellent
Psychological/Emotional Bullying	10	0.87	Very Good
Cyber Bullying	10	0.94	Excellent
Overall Result	40	0.94	Excellent

Legend: (De Guzman-Santos, 2007)

0.90 and above - Excellent Reliability

0.80 - 0.89 - Very Good Reliability

0.70 - 0.79 - Good Reliability

0.60 - 0.69 - Somewhat Low Reliability

0.50 - 0.59 - Needs Revision

Table 3. Reliability Table on the Questionnaire on the Causes of Bullying Behaviors Exhibited by the Basic Education Students

Category	Number of Items	Reliability Coefficient	Interpretation
Physical Factors	5	0.84	Very Good
Sociological Factors	10	0.84	Very Good
Psychological/Emotional Factors	10	0.85	Very Good
Overall Result	25	0.92	Excellent

Legend: (De Guzman-Santos, 2007)

0.90 and above - Excellent Reliability

0.80 - 0.89 - Very Good Reliability

0.70 - 0.79 - Good Reliability

0.60 - 0.69 - Somewhat Low Reliability

0.50 - 0.59 - Needs Revision

Table 4. Reliability Table on the Questionnaire on the Influences of School Bullying on the Academic Performance of the Basic Education Students

Category	Number of Items	Reliability Coefficient	Interpretation
Influences of School Bullying on Academic Performance	15	0.96	Excellent

Legend: (De Guzman-Santos, 2007)

0.90 and above - Excellent Reliability

0.80 - 0.89 - Very Good Reliability

0.70 - 0.79 - Good Reliability

0.60 - 0.69 - Somewhat Low Reliability

0.50 - 0.59 - Needs Revision

Based on the tables, all items show an excellent reliability result.

Statistical Treatment

The statistical tools employed in analyzing and interpreting the results of this investigation were the frequency counts and percentage, mean and standard deviation, Spearman's rho, Point-biserial correlation test, ANOVA test for linearity, eta squared, Pearson r was used, and t-test for independent samples.

The data and information in this study were encoded and treated through the use of IBM SPSS 20 software.

Results and Discussions

Profile of the Respondents

Table 5 purports the frequency and percentage distribution of the profile of the respondents in terms of age, sex, birth rank, grade level, status of parents, and family income.

Table 5. Profile of the Student-Respondents

Profile	Frequency	Percent
Age		
10-11 yrs. old	29	9.3
12-13 yrs. old	94	30.1
13-14 yrs. old	65	20.8
16-17 yrs. old	124	39.7
Total	312	100.0
Sex		
Male	173	55.4
Female	139	44.6
Total	312	100.0
Birth Rank		
Only Child/First	140	44.9
Second	67	21.5
Third	45	14.4
Fourth	27	8.7
Fifth	15	4.8
Sixth	16	5.1
Seventh	1	.3
Ninth	1	.3
Total	312	100.0
Grade Level		
Primary	45	14.4
Junior	127	40.7
Senior	140	44.9
Total	312	100.0
Status of Parents		
Together	230	73.7
Separated	63	20.2
Absent	19	6.1
Total	312	100.0
Family Income (Php)		
5000 and below	48	15.4
5001 to 10000	31	9.9
10001 to 15000	48	15.4
15001 to 20000	44	14.1
20001 to 25000	25	8.0
25001 to 30000	34	10.9
30000 and above	82	26.3
Total	312	100.0

The result showed that many of the respondents were adolescents as manifested by their dominance based on age and grade level. These individuals bear seniority in the basic education department. Moreover, most were first child, the eldest among the siblings or it could be that they're the only child in the family. It can be inferred that first born may have developed superiority while only child may look overly confident or self-important. The parents of most of the respondents are still in a relationship and many of them belong to a well-off family.

Based on Table 6, the student-respondents agree to the different statements about self-esteem which is further interpreted as the student-respondents having a high self-esteem ($=2.77, =0.41$).

Table 6. Mean and Standard Deviation of the Self-Esteem of the Student-Respondents

Self-Esteem	Mean	SD	QD
1. On the whole, I am satisfied with myself	3.21	0.70	Agree
2. At times, I think I am good at all.	2.23	0.77	Disagree
3. I feel that I have a number of good qualities.	3.00	0.64	Agree
4. I am able to do things as well most of other people.	3.02	0.70	Agree
5. I feel I have much to be proud of.	2.66	0.81	Agree
6. I certainly do not feel useless at times.	2.48	0.88	Disagree
7. I feel that I'm a person of worth, at least on equal plane with others.	2.97	0.66	Agree
8. I have more respect for myself.	1.98	0.81	Disagree
9. All in all, I am inclined that I am not a failure.	2.80	0.88	Agree
10. I take positive attitude toward myself.	3.36	0.76	Agree
Overall	2.77	0.41	Agree

Legend: 1.00 – 1.49 Strongly Disagree (Very Low)

1.50 – 2.49 Disagree (Low)

2.50 – 3.49 Agree (High)

3.50 – 4.00 Strongly Agree (Very High)

This can be implied that the respondents show positive regards of their selves. They have been able to establish identity, attitude, and morale which help them to develop their self-esteem.

Bullying Behaviors Exhibited by Basic Education Students

Table 7 presents data on physical bullying behaviors exhibited by basic education students.

Both teacher-respondents and student-respondents perceive that basic education students sometimes do physical bullying which is of moderate extent ($=3.16;3.21, =0.57;0.59$). This situation can be implied that there were a few who did offensive physical actions towards other students but it's not that rampant. It might just a mere play that sometimes led to hurting due to uncontrolled emotions especially when they're beat.



Table 7. Mean and Standard Deviation of the Physical Bullying Behavior of the Basic Education Students as Perceived by Teachers and Students

Physical Bullying	Classification	Mean	SD	QD
1. Punching or slapping	Teacher	3.08	.87	Sometimes
	Student	3.54	.96	Often
	Total	3.50	.96	Often
2. Throwing stone or other objects when someone is passing	Teacher	3.00	1.10	Sometimes
	Student	2.84	1.07	Sometimes
	Total	2.85	1.07	Sometimes
3. Striking out at one's foot while walking	Teacher	3.22	.83	Sometimes
	Student	3.03	1.06	Sometimes
	Total	3.05	1.04	Sometimes
4. Poking, patting, or pulling out the uniform or hair of the student	Teacher	3.47	.56	Sometimes
	Student	3.66	.67	Often
	Total	3.64	.66	Often
5. Pulling out the person from one's sitting	Teacher	3.31	.71	Sometimes
	Student	3.64	.67	Often
	Total	3.61	.69	Often
6. Stealing or destroying the possessions of the person	Teacher	3.03	1.03	Sometimes
	Student	2.94	1.19	Sometimes
	Total	2.95	1.18	Sometimes
7. Pushing a student in a waiting line	Teacher	3.44	.56	Sometimes
	Student	3.79	.88	Often
	Total	3.76	.86	Often
8. Throwing solid things over the head of a person	Teacher	2.86	1.05	Sometimes
	Student	2.79	1.09	Sometimes
	Total	2.80	1.08	Sometimes
9. Choking solid material like crumpled paper and the like	Teacher	3.00	1.29	Sometimes
	Student	2.53	1.13	Sometimes
	Total	2.58	1.15	Sometimes
10. Pinching or lifting one's skin	Teacher	3.17	.77	Sometimes
	Student	3.33	1.07	Sometimes
	Total	3.32	1.05	Sometimes
Overall	Teacher	3.16	.57	Sometimes
	Student	3.21	.59	Sometimes
	Total	3.20	.59	Sometimes

Legend: 1.00 – 1.49 Nothing
 1.50 – 2.49 Rarely
 2.50 – 3.49 Sometimes
 3.50 – 4.49 Often
 4.50 – 5.00 Always

Based on Table 8 both teachers and students perceive that basic education students often commit verbal bullying ($=4.02; 3.82, =0.52; 0.82$). Thus, it can be meant that basic education students were obviously practicing such bullying behaviors. They were already used to these things and they did these repeatedly. This type of bullying may go unnoticed and unreported for long periods of time. A research was undertaken and found that over 80 per cent of verbal bullying cases took place in the inside of the school compound. However, nothing tangible was done by the school administration to fully settle the issues (“Interesting Verbal”, 2015).

Table 8. Mean and Standard Deviation of the Verbal Bullying Behavior of the Basic Education Students as Perceived by Teachers and Students

Verbal Bullying	Classification	Mean	SD	QD
1. Laughing at person's mistakes or failures	Teacher	4.36	.72	Often
	Student	4.31	.96	Often
	Total	4.31	.94	Often
2. Teasing the person for having a weak appearance	Teacher	4.19	.52	Often
	Student	3.84	1.08	Often
	Total	3.88	1.05	Often
3. Gossiping about student	Teacher	3.97	.81	Often
	Student	3.78	1.09	Often
	Total	3.80	1.06	Often
4. Calling one's name out loud	Teacher	3.97	.51	Often
	Student	3.98	.99	Often
	Total	3.98	.95	Often
5. Doing some offensive jokes toward a person	Teacher	4.17	.61	Often
	Student	4.03	.98	Often
	Total	4.04	.95	Often
6. Blaming a student for something he has not done just to protect his/her self from accusations	Teacher	3.86	.83	Often
	Student	3.42	1.12	Sometimes
	Total	3.47	1.10	Sometimes
7. Threatening a student by making use of his fears	Teacher	3.83	.85	Often
	Student	3.35	1.14	Sometimes
	Total	3.40	1.12	Sometimes
8. Using name-calling like “ugly”, “fat”, “lazy”, and the like	Teacher	4.11	.82	Often
	Student	3.98	1.13	Often
	Total	3.99	1.10	Often
9. Insulting a person in front of others	Teacher	3.86	.90	Often
	Student	3.71	1.12	Often
	Total	3.73	1.10	Often
10. Saying “stupid”, “fool”, or “moron	Teacher	3.86	.87	Often
	Student	3.80	1.16	Often
	Total	3.81	1.14	Often
Overall	Teacher	4.02	.52	Often
	Student	3.82	.82	Often
	Total	3.84	.79	Often

Legend:

- 1.00 – 1.49 Nothing
- 1.50 – 2.49 Rarely
- 2.50 – 3.49 Sometimes
- 3.50 – 4.49 Often
- 4.50 – 5.00 Always

Table 9 displays information of the mean and standard deviation of the psychological/emotional bullying behaviors of the basic education as perceived by teachers and students.

Both teacher-respondents and student-respondents perceive that basic education students often exclude a student who is not part of their peer group ($=2.69;3.58, =0.62;0.80$) and make fun watching other people get hurt or failed ($=3.72;3.55, =0.61;1.16$). This can be inferred that students and teachers have observed that strong peer groups exist in the school. One can't be part if he looks unfit to the group. Thus, being left out by a group of people is painful at any age. Moreover, there are individuals who laugh when others get hurt. It goes to show that there are students who are insensitive to the feelings of those persons who have suffered from such situation. Instead, they look at it as a source of fun without thinking of its consequences it may bring to.

Further, both teacher-respondents and student-respondents perceive that basic education students sometimes write the names on the board with funny descriptions ($=3.31;3.07, =0.75;1.07$), feel angry with someone who intimidated him ($=3.44;3.21, =0.84;1.05$), passing nasty notes or drawings of a person ($=3.44;2.97, =0.77;1.11$), writing remarks in public places of person ($=3.42;2.80, =0.87;1.07$), and locking the door of the classroom where there is someone inside ($=3.33;3.25, =1.07;1.25$). Further, the teacher-respondents perceive that basic education students often underestimate one's capability ($=3.67, =0.76$) while student-respondents claim it to be done sometimes ($=3.39, =1.10$). Also, the teacher-respondents perceive that basic education students often discriminate a person ($=3.58, =0.87$) while student-respondents perceive it to be done sometimes ($=3.38, =1.13$). The difference in their perception can be explained that teachers have clearly observed those students who show prejudices among other persons. Hence, it can lower their confidence and esteem. According to Wilson (2012), people who are discriminated against can suffer significant negative consequences. General well-being, self-esteem, self-worth, and social relations can be severely impacted as a result of discrimination. On the contrary, students may look at these things as ordinary and mere tripping acts to somebody.

Moreover, teacher-respondents perceive that basic education students always laugh at someone who gets a lower score or a failing grade or even zero in the test ($=4.56, =0.61$) and student-respondents perceive it often does ($=3.66, =1.13$). This simply means that teachers have clearly noticed that students show how funny they are when somebody scores very low in the test. Thus, it can somehow demoralize a person. Also, students have recognized that such act is really existing in their class.

Table 9. Mean and Standard Deviation of the Psychological/Emotional Bullying Behavior of the Basic Education Students as Perceived by Teachers and Students

Psychological/Emotional Bullying	Classification	Mean	SD	QD
1. Excluding who is not part of the peer group	Teacher	3.69	.62	Often
	Student	3.58	.80	Often
	Total	3.59	.78	Often
2. Writing the names on the board with funny descriptions	Teacher	3.31	.75	Sometimes
	Student	3.07	1.07	Sometimes
	Total	3.10	1.05	Sometimes
3. Feeling angry with someone just to intimidate him	Teacher	3.44	.84	Sometimes
	Student	3.21	1.05	Sometimes
	Total	3.24	1.03	Sometimes
4. Passing nasty notes or drawings of a person	Teacher	3.44	.77	Sometimes
	Student	2.97	1.11	Sometimes
	Total	3.02	1.08	Sometimes
5. Writing remarks in public places of a person	Teacher	3.42	.87	Sometimes
	Student	2.80	1.07	Sometimes
	Total	2.86	1.07	Sometimes
6. Underestimating one's capability	Teacher	3.67	.76	Often
	Student	3.39	1.10	Sometimes
	Total	3.41	1.07	Sometimes
7. Laughing at someone who gets a lower score or a failing grade or even zero in the test	Teacher	4.56	.61	Always
	Student	3.66	1.13	Often
	Total	3.76	1.12	Often
8. Funny watching other people get hurt or failed	Teacher	3.72	.61	Often
	Student	3.55	1.16	Often
	Total	3.57	1.11	Often
9. Discriminating a person	Teacher	3.58	.87	Often
	Student	3.38	1.13	Sometimes
	Total	3.40	1.11	Sometimes
10. Locking the door of the classroom where there is someone inside	Teacher	3.33	1.07	Sometimes
	Student	3.25	1.25	Sometimes
	Total	3.26	1.23	Sometimes
Overall	Teacher	3.62	.47	Often
	Student	3.29	.74	Sometimes
	Total	3.32	.73	Sometimes

Legend: 1.00 – 1.49 Nothing
 1.50 – 2.49 Rarely
 2.50 – 3.49 Sometimes
 3.50 – 4.49 Often
 4.50 – 5.00 Always

Table 10 shows the perception of teachers and students on the cyber bullying behaviors of basic education students.

The overall result shows that cyber bullying is rare in the basic education department as perceived by both groups of respondents ($=2.27; 2.39, =0.94; 1.10$). This can be explained that the use of social networking sites among the students is still appropriate and does not exploit human privacy and emotion

Table 10. Mean and Standard Deviation of the Cyber Bullying Behavior of the Basic Education Students as Perceived by Teachers and Students

Cyber Bullying	Classification	Mean	SD	QD
1. Spreading rumors of a person through group messages	Teacher	2.94	1.37	Sometimes
	Student	2.87	1.49	Sometimes
	Total	2.88	1.48	Sometimes
2. Sending threatening messages in the Facebook chat box of a person	Teacher	2.11	1.28	Rarely
	Student	2.29	1.32	Rarely
	Total	2.27	1.32	Rarely
3. Using vulgar and abusive language with the intention of starting a fight with the person using the social networking sites	Teacher	2.44	1.30	Rarely
	Student	2.59	1.40	Sometimes
	Total	2.58	1.38	Sometimes
4. Uploading displeasing pictures or videos of a person	Teacher	2.36	1.07	Rarely
	Student	2.32	1.39	Rarely
	Total	2.32	1.36	Rarely
5. Making blind items through social networking sites	Teacher	2.53	1.18	Sometimes
	Student	2.48	1.41	Rarely
	Total	2.48	1.39	Rarely
6. Giving the phone number to someone or posting it to the news feed without the permission of the owner	Teacher	1.64	.96	Rarely
	Student	1.95	1.15	Rarely
	Total	1.92	1.13	Rarely
7. Blackmailing using cell phone/social media	Teacher	1.92	1.05	Rarely
	Student	2.23	1.37	Rarely
	Total	2.20	1.35	Rarely
8. Liking and sharing stolen shots which faces or acts can be a source of fun of others when they are posted in Facebook	Teacher	2.61	1.20	Sometimes
	Student	2.89	1.52	Sometimes
	Total	2.86	1.49	Sometimes
9. Using the picture of a person to disguise his/her persona	Teacher	2.00	1.24	Rarely
	Student	2.21	1.31	Rarely
	Total	2.19	1.30	Rarely
10. Sharing or tagging X-rated pictures and videos to someone's timeline	Teacher	2.14	.96	Rarely
	Student	2.04	1.31	Rarely
	Total	2.05	1.28	Rarely
Overall	Teacher	2.27	.94	Rarely
	Student	2.39	1.10	Rarely
	Total	2.38	1.08	Rarely

Legend: 1.00 – 1.49 Nothing
 1.50 – 2.49 Rarely
 2.50 – 3.49 Sometimes
 3.50 – 4.49 Often
 4.50 – 5.00 Always

Test of Significant Relationship between the Profile and Bullying Behaviors of the Student-Respondents

Table 11 presents the answer to the question if there exists significant relationships between the profile and bullying behavior of the student-respondents. The statistical measures applied were the Spearman's rho, Point-biserial correlation test, ANOVA test for linearity and eta squared.

Table 11. Test of Significant Relationship between the Student-Respondents' Profile and their Perceived Bullying Behavior

		Physical Bullying	Verbal Bullying	Psychological or Emotional Bullying	Cyber Bullying	Overall Bullying Behavior
Age	Coeff. (p)	-.140*	-.044	-.019	.096	-.014
	Sig. (2-tailed)	.013	.435	.737	.089	.804
	N	312	312	312	312	312
Sex	Coeff. (r _{pb})	-.003	.077	.048	.132*	.095
	Sig. (2-tailed)	.963	.174	.402	.020	.094
	N	312	312	312	312	312
Birth Rank	Coeff. (p)	.072	-.008	.014	.020	.024
	Sig. (2-tailed)	.203	.884	.799	.725	.667
	N	312	312	312	312	312
Grade Level	Coeff. (p)	-.161**	-.076	-.048	.053	-.057
	Sig. (2-tailed)	.004	.182	.396	.349	.312
	N	312	312	312	312	312
Status of Parents	df	2;309	2;309	2; 309	2; 309	2; 309
	F	1.737	0.731	0.022	0.219	0.674
	Sig.	0.178	0.482	0.978	0.803	0.510
	Eta Squared	0.011	0.005	0.000	0.001	0.004
Family Income	Coeff. (p)	.009	.075	-.077	.080	.043
	Sig. (2-tailed)	.870	.187	.173	.156	.450
	N	312	312	312	312	312
Self-Esteem	Coeff. (r)	-.010	.009	-.086	-.038	-.041
	Sig. (2-tailed)	.857	.869	.132	.504	.473
	N	312	312	312	312	312

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Spearman's rho was run to determine the relationship between age, birth rank, grade level and family income, and their bullying behaviors. There was a weak negative correlation between age and physical bullying behaviors of the student respondents which was statistically significant ($p=0.013$). It was also found out there exists a significant weak negative correlation between grade level and physical bullying behaviors of the respondents ($p=0.004$). However, age and grade level were found to be not significantly correlated with verbal bullying, psychological/emotional bullying, cyber bullying and the overall bullying behaviors of basic education students ($p=0.435; 0.737; 0.089$, $p=0.182; 0.396; 0.349$), and birth rank, family income and self-esteem are not significantly correlated with the bullying behaviors of the basic education students ($p=0.667$, $p=0.450$, $p=0.473$).

Point-biserial correlation test was used to determine if there is a significant relationship between sex and the bullying behavior of the respondents. It was found out there exists a weak positive correlation between the two variables ($p=.094$). Female respondents (coded 1) has significantly higher perception than male respondents (coded 2). However, sex is not significantly correlated with physical bullying, verbal bullying, psychological/emotional bullying and overall bullying behaviors of the basic education students ($p=0.963$, $p=0.174$, $p=0.402$).

Lastly, ANOVA test for linearity and eta squared were used to determine if there exists a significant relationship between status of parents and bullying behaviors. However, there is no significant relationship between the two ($p=0.510$). Based on the eta squared, only a very small part of the changes in the dependent variable (bullying behaviors) is explained by the independent variable (status of parents).

The overall result shows that there is no significant relationship between the profile of the respondents and their perceived bullying behaviors. However, it is shown that age and grade level have a significant relationship to physical bullying. Same result is obtained between sex and cyber bullying which does have a significant relationship to each other. Thus, we do not reject the null hypothesis except for age and grade level which are statistically significant to physical bullying and same with sex to cyber bullying. These variables have less than 0.05 p-value.

Causes of Bullying Behaviors

Table 12 shows the physical factors that cause the bullying behaviors of basic education students as perceived by teachers and students.

Table 12. Mean and Standard Deviation of the Physical Factors that Cause the Bullying Behavior of the Basic Education Students as Perceived by Teachers and Students

Physical Factors	Classification	Mean	SD	QD
1. Large class size	Teacher	3.03	1.06	Quite
	Student	3.12	1.18	Quite
	Total	3.11	1.17	Quite
2. Lack of learning facilities and resources	Teacher	2.72	1.09	Quite
	Student	2.93	1.14	Quite
	Total	2.91	1.14	Quite
3. Lack of instructional materials	Teacher	2.64	1.10	Quite
	Student	2.83	1.10	Quite
	Total	2.81	1.10	Quite
4. Room is not fully structured	Teacher	2.36	1.10	Almost
	Student	2.52	1.15	Quite
	Total	2.50	1.14	Quite
5. Space is limited	Teacher	2.78	1.22	Quite
	Student	2.78	1.14	Quite
	Total	2.78	1.15	Quite
Overall	Teacher	2.71	.98	Quite
	Student	2.84	.88	Quite
	Total	2.82	.89	Quite

Legend: 1.00 – 1.49 Not at all
 1.50 – 2.49 Almost
 2.50 – 3.49 Quite
 3.50 – 4.49 Very
 4.50 – 5.00 Extremely

Overall, bullying behaviors were perceived to be quite caused by the physical factors ($=2.82$, $=0.89$).

This can be implied that physical factors may have a little impact to the bullying behaviors of the basic education students. This might be attributed by the fact that the basic education department has a good physical classroom structure with air conditioning units which is comfortable for learning. The number of students is quite distributed well. Yet, in some aspects, there are some classrooms which space is limited. And, most lack of instructional materials or resources inside which can somehow be a source of learning for the students.

Table 13 presents the social factors that cause the bullying behaviors of basic education students as perceived by teachers and students. Among the given social factors, both teachers and students perceive that poor family bonding ($=3.92;3.75, =0.91;0.81$), abuses (physical, sexual) ($=3.67;3.73, =0.79;0.88$), parent-child separation ($=3.67;3.70, =0.89;0.96$), and family warfare ($=3.61;3.69, =1.08;1.01$) to be the very causes of the occurrence of school bullying. This can be implied that parental influences or family setting can be the reasons behind the said issue.

Table 13. Mean and Standard Deviation of the Social Factors that Cause the Bullying Behavior of the Basic Education Students as Perceived by Teachers and Students

Social Factors	Classification	Mean	SD	QD
1. Difficult school task	Teacher	3.14	1.10	Quite
	Student	3.43	1.14	Quite
	Total	3.40	1.14	Quite
2. Poor family bonding	Teacher	3.92	.91	Very
	Student	3.75	.81	Very
	Total	3.77	.82	Very
3. Educational Failure (drop-out, repeater)	Teacher	3.00	1.33	Quite
	Student	2.97	1.37	Quite
	Total	2.97	1.36	Quite
4. Strict Discipline	Teacher	3.42	.94	Quite
	Student	3.35	1.20	Quite
	Total	3.35	1.18	Quite
5. Moody Teacher	Teacher	3.08	.87	Quite
	Student	3.17	1.15	Quite
	Total	3.16	1.12	Quite
6. Peer Competition	Teacher	3.47	.84	Quite
	Student	3.26	1.19	Quite
	Total	3.28	1.16	Quite
7. Abuses (physical, sexual)	Teacher	3.67	.79	Very
	Student	3.73	.88	Very
	Total	3.73	.87	Very
8. Frequent residential moves	Teacher	3.00	1.24	Quite
	Student	2.88	1.19	Quite
	Total	2.89	1.20	Quite
9. Parent-child Separation	Teacher	3.67	.89	Very
	Student	3.70	.96	Very
	Total	3.70	.95	Very
10. Family Warfare	Teacher	3.61	1.08	Very
	Student	3.69	1.01	Very
	Total	3.69	1.01	Very
Overall	Teacher	3.40	.66	Quite
	Student	3.39	.70	Quite
	Total	3.39	.70	Quite

Legend: 1.00 – 1.49 Not at all
1.50 – 2.49 Almost
2.50 – 3.49 Quite
3.50 – 4.49 Very
4.50 – 5.00 Extremely

The family is undeniably the pre-eminent social system in which a child is embedded. Thus, dysfunctional family can be influential to the behaviors of the students because their experiences are the results of what have been observed from the existing

behavior patterns within the family structure. Hence, Rigby (2013) cited that frustration on the part of children who have negative relations with parents who treat them badly or fail to provide support may result in them directing the aggression they feel towards their peers. It may also be the case that children who behave aggressively towards other students also behave aggressively towards their parents who, as a consequence, treat them in a generally negative and unsupportive manner. Also, Rigby (2007) suggested that inadequate parenting is a contributing determinant of bullying behavior. Moreover, in the research findings of PREVNet, it was found that parenting characteristics are linked to bullying all point to a problem in the parent-child relationship, including low levels of warmth and cohesion, low levels of youth-reported trust in their parents, high levels of parent-child conflict, physical punishment, low levels of parental monitoring, and poor parent-child communication.

Table 14 shows that teacher-respondents perceive the psychological/emotional factors as the very causes bullying behaviors ($=3.64$, $=0.78$) except for naïve ($=3.36$, $=0.87$) and early childhood aggression ($=3.39$, $=0.93$) which they perceive to be quiet. On the other hand, student-respondents perceive the psychological/emotional factors to be the quite causes ($=3.33$, $=0.96$) of the bullying behaviors.

Table 14. Mean and Standard Deviation of the Psychological/Emotional Factors that Cause the Bullying Behavior of the Basic Education Students as Perceived by Teachers and Students

Psychological/Emotional Factors	Classification	Mean	SD	QD
1. Lack of Interest	Teacher	3.61	.93	Very
	Student	3.29	1.24	Quite
	Total	3.33	1.21	Quite
2. Inferiority Complex	Teacher	3.58	.97	Very
	Student	3.06	1.17	Quite
	Total	3.12	1.16	Quite
3. Early anti-social behaviour	Teacher	3.58	.97	Very
	Student	3.19	1.17	Quite
	Total	3.23	1.16	Quite
4. Low I.Q.	Teacher	3.72	.88	Very
	Student	3.27	1.27	Quite
	Total	3.31	1.24	Quite
5. Naïve	Teacher	3.36	.87	Quite
	Student	3.12	1.23	Quite
	Total	3.14	1.20	Quite
6. Feeling of superiority	Teacher	3.67	.93	Very
	Student	3.74	.92	Very
	Total	3.73	.92	Very
7. Anxiety	Teacher	3.61	.90	Very
	Student	3.30	1.21	Quite
	Total	3.33	1.19	Quite
8. Early childhood aggression	Teacher	3.39	.93	Quite
	Student	3.16	1.19	Quite
	Total	3.18	1.17	Quite
9. Lack of attention at home	Teacher	3.94	.95	Very
	Student	3.49	1.32	Quite
	Total	3.54	1.30	Very
10. Spoiled Brat	Teacher	3.89	.95	Very
	Student	3.65	3.18	Very
	Total	3.68	3.02	Very
Overall	Teacher	3.64	.78	Very
	Student	3.33	.96	Quite
	Total	3.36	.95	Quite

Legend: 1.00 – 1.49 Not at all
 1.50 – 2.49 Almost
 2.50 – 3.49 Quite
 3.50 – 4.49 Very
 4.50 – 5.00 Extremely

This can be implied that teachers believe that lack of interest, inferiority complex, early anti-social behavior, low I.Q., feeling of superiority, anxiety, lack of attention at home, and spoiled brat can be some of the reasons of bullying behaviors. Hence, it can be meant that teachers have observed how the psychological state of their students can be link to the patterns of their behavior. On the other hand, the perception of the students can be explained that somehow they have realized that bullying behaviors may have been caused by some psychological conditions. In the research article posted by Ditch the Label (2016), one of the largest anti-bullying charities in the world, shows that those who bully are far more likely than average to have experienced a stressful or traumatic situation in the past 5 years; those who have experienced bullying are twice as likely to go on and bully others and it's used as a defense mechanism and people tend to believe that by bullying others, they will become immune to being bullied themselves; those who bully people daily told that they feel like their parents/guardians don't have enough time to spend with them and there are often feelings of rejection from the very people who should love them unconditionally; and those who bully are more likely to feel like their family relationships aren't very secure and they are more likely to feel like those who are closest to them make them do things that they don't feel comfortable doing and aren't very supportive or loving.

Influences of School Bullying on the Academic Performance of the Basic Education Students

The succeeding table presents the mean and standard deviation of the influences of school bullying on the academic performance of the basic education students as perceived by teacher-respondents and student-respondents.

Based on Table 15, both the student-respondents and teacher-respondents agree that school bullying can influence on the academic performance of the basic education students ($\bar{x}=3.92$; $s=3.53$, $r=0.41$; 0.94). Their influences can result in poor attendance throughout the school year, low test results, lack of focus/interest during classroom discussion, not motivated to recite or speak in class, poor academic outputs, low completion rates of subject requirements, cannot meet the deadlines of submission of the projects, outputs, and the like, no interest in group activities, comes to school late, possibility of inhibiting class cutting, learning tasks are not well-performed, having poor or dropping grades, does not cooperate in various learning tasks, failed to do the assignments at home, and cannot cope with the lessons. This can be implied that teachers and students have observed that school bullying poses a problem on the academic performance of the basic education students. It can be a causal factor for having a poor academic performance in the class. It can affect the attendance, quality of written works and performance tasks and even the quarterly examination.

According to the study of Kimanzi, Mugambi, Tumuti, & Mokaya (2015), it revealed that bullying is a serious problem that can dramatically affect the ability of students to progress academically, emotionally and socially.

Table 15. Mean and Standard Deviation of Influences on Academic Performance of the Bullying Behavior of the Basic Education Students as Perceived by Teachers and Students

Psychological/Emotional Factors	Classification	Mean	SD	QD	
1. Poor attendance throughout the school year	Teacher	3.97	.61	Agree	
	Student	3.51	1.26	Agree	
	Total	3.55	1.21	Agree	
2. Low test results	Teacher	3.89	.67	Agree	
	Student	3.73	1.10	Agree	
	Total	3.74	1.07	Agree	
3. Lack of focus/interest during classroom discussion	Teacher	4.06	.63	Agree	
	Student	3.83	1.03	Agree	
	Total	3.85	1.00	Agree	
4. Not motivated to recite or speak in class	Teacher	4.11	.67	Agree	
	Student	3.70	1.15	Agree	
	Total	3.74	1.11	Agree	
5. Poor academic outputs	Teacher	4.00	.68	Agree	
	Student	3.52	1.15	Agree	
	Total	3.57	1.12	Agree	
6. Low completion rates of subject requirements	Teacher	3.89	.57	Agree	
	Student	3.49	1.10	Neutral	
	Total	3.53	1.06	Agree	
7. Cannot meet the deadlines of submission of the projects, outputs, and the like	Teacher	3.81	.62	Agree	
	Student	3.47	1.20	Neutral	
	Total	3.51	1.16	Agree	
8. No interest in group activities	Teacher	3.81	.79	Agree	
	Student	3.45	1.19	Neutral	
	Total	3.49	1.16	Neutral	
9. Comes to school late	Teacher	3.78	.90	Agree	
	Student	3.40	1.19	Neutral	
	Total	3.44	1.17	Neutral	
10. Possibility of inhibiting class cutting	Teacher	3.61	.90	Agree	
	Student	3.34	1.28	Neutral	
	Total	3.37	1.25	Neutral	
11. Learning tasks are not well-performed.	Teacher	3.75	.77	Agree	
	Student	3.43	1.20	Neutral	
	Total	3.46	1.17	Neutral	
12. Having poor or dropping grades	Teacher	3.86	.68	Agree	
	Student	3.53	1.18	Agree	
	Total	3.57	1.14	Agree	
13. Does not cooperate in various learning tasks	Teacher	4.08	.77	Agree	
	Student	3.47	1.17	Neutral	
	Total	3.54	1.15	Agree	
14. Failed to do the assignments at home	Teacher	4.00	.83	Agree	
	Student	3.50	1.19	Agree	
	Total	3.55	1.17	Agree	
15. Cannot cope with the lessons	Teacher	4.25	.65	Agree	
	Student	3.56	1.21	Agree	
	Total	3.63	1.18	Agree	
Overall	Teacher	3.92	.41	Agree	
	Student	3.53	.94	Agree	
	Total	3.57	.91	Agree	
Legend:	1.00 – 1.49	Strongly Disagree	3.50 – 4.49	Agree	□
	1.50 – 2.49	Disagree	4.50 – 5.00	Strongly Agree	
	2.50 – 3.49	Neutral			

Test of Significant Relationship between the Bullying Behaviors and Influences on the Academic Performance of Basic Education Students

Using Pearson r , it was found out that there exists a significant positive relationship between bullying behaviors and influences on academic performance of basic education students.

Table 16. Test of Significant Relationship between the Bullying Behavior and Influences on the Academic Performance of Basic Education Students

Bullying Behavior		Influences on the Academic Performance
Physical Bullying	Coeff. (r)	.325*
	Sig. (2-tailed)	.000
	N	348
Verbal Bullying	Coeff. (r)	.530*
	Sig. (2-tailed)	.000
	N	348
Psychological/Emotional Bullying	Coeff. (r)	.458*
	Sig. (2-tailed)	.000
	N	348
Cyber Bullying	Coeff. (r)	.346*
	Sig. (2-tailed)	.000
	N	348
Overall Bullying Behavior	Coeff. (r)	.534*
	Sig. (2-tailed)	.000
	N	348

*Correlation is significant 0.05 alpha levels

The results mean that the higher the extent of the bullying behaviors is among the student, the greater the extent of its influence on the academic performance as perceived by the respondents. Thus, we reject the null hypothesis which states that there is no a significant relationship between the bullying behaviors and its influences on the academic performance of the basic education students.

Test of Significant Differences between the Perceptions of Teachers and Students about Exhibited Bullying Behaviors, Causes of the Bullying Behaviors, and Influences on the Academic Performance of the Basic Education Students

Table 17 shows the results of the t-test for independent samples carried out to identify significant differences on the perception of teachers and students about the exhibited bullying behaviors of basic education students.

At 0.05 alpha, there exists no significant difference between the perception of teachers and students on the exhibited physical bullying behaviors ($t=-0.499$, $df=346$, $p=0.618$) and cyber bullying behaviors ($t=-0.622$, $df=346$, $p=0.535$). On the other hand, there exists a significant difference between the perception of teachers and students on the

Table 17. Test of Significant Differences between the Perceptions of Teachers and Students about Exhibited Bullying Behavior

Bullying Behavior	Classification	Mean	QD	t-test for Equality of Means		
				t	df	Sig. (2-tailed)
Physical Bullying	Teacher	3.16	Sometimes	-.499	346	.618
	Student	3.21	Sometimes			
Verbal Bullying	Teacher	4.02	Often	2.037*	56.990	.046
	Student	3.82	Often			
Psychological/Emotional Bullying	Teacher	3.62	Often	3.719*	57.501	.000
	Student	3.29	Sometimes			
Cyber Bullying	Teacher	2.27	Rarely	-.622	346	.535
	Student	2.39	Rarely			
Overall Bullying Behavior	Teacher	3.27	Rarely	1.123	54.307	.266
	Student	3.18	Rarely			
Legend:	1.00 – 1.49	Nothing	*significant at 0.05 alpha level			
	1.50 – 2.49	Rarely				
	2.50 – 3.49	Sometimes				
	3.50 – 4.49	Often				
	4.50 – 5.00	Always				

exhibited verbal bullying behaviors ($t=2.037$, $df=56.990$, $p=0.046$), and psychological/emotional bullying behaviors ($t=3.719$, $df=57.501$, $p=0.000$). However, the overall result shows that there is no significant difference on the perceived bullying behaviors of basic education students by the teachers and students ($t=1.123$, $df=54.307$, $p=0.266$). Thus, we do not reject the null hypothesis which states there is no significant difference between the perceptions of teachers and students about exhibited bullying behaviors.

Under verbal bullying behaviors, the perception of teachers ($=4.02$) is significantly higher than the perception of students (3.82). Under psychological/emotional bullying behaviors, the perception of teachers (3.62) is significantly higher than the perception of students (3.29). Their significant difference can be explained that teachers have well-observed that the acts of their students have been in repetition which can be associated with bullying. Students on their part may have less observance of their behaviors because they are the subjects and they may ignore such things.

Table 18 shows the results of the t-test for independent samples applied to identify significant differences on the perception of teachers and students about the causes of bullying behaviors. At 0.05 alpha, there exists no significant difference between the perception of teachers and students on the physical factors and psychological/emotional factors. Thus, we do not reject the null hypothesis which states that there is no significant difference on perception between the teacher-respondents and student-respondents with regard to the causes of bullying behaviors.

Table 18. Test of Significant Differences between the Perceptions of Teachers and Students about Causes of Bullying Behaviors

Causes of Bullying Behavior	Classification	Mean	QD	t-test for Equality of Means		
				t	df	Sig. (2-tailed)
Physical Factors	Teacher	2.71	Quite	-.830	346	.407
	Student	2.84	Quite			
Social Factors	Teacher	3.40	Quite	.027	346	.979
	Student	3.40	Quite			
Psychological/Emotional Factors	Teacher	3.64	Very	1.854	346	.065
	Student	3.33	Quite			
Legend:	1.00 – 1.49	Not at all				
	1.50 – 2.49	Almost				
	2.50 – 3.49	Quite				
	3.50 – 4.49	Very				
	4.50 – 5.00	Extremely				

Table 19 shows the results of the t-test for independent samples applied to identify significant differences of the perception of teachers and students about the influences of school bullying on the academic performance of the basic education students. At 0.05 alpha, there is a significant difference on the perception between teachers and students. Thus, we reject the null hypothesis which states that there is no a significant difference on the perception of the teachers and students with regard to the influences of school bullying on academic performance of the basic education students.

Table 19. Test of Significant Differences between the Perceptions of Teachers and Students about Influences of School Bullying on Academic Performance

				t-test for Equality of Means		
Influences on Academic Performance	Classification	Mean	QD	t	df	Sig. (2-tailed)
	Teacher	3.92	Agree	4.576*	86.782	.000
	Student	3.53	Agree			
Legend:	1.00 – 1.49	Strongly Disagree*significant at 0.05 alpha level				
	1.50 – 2.49	Disagree				
	2.50 – 3.49	Neutral				
	3.50 – 4.49	Agree				
	4.50 – 5.00	Strongly Agree				

Conclusions

This study looked into the bullying behaviors exhibited by basic education students, causes of bullying behaviors as well as the influences of school bullying on the academic performance of the basic education students.

It can be concluded that bullying exists in the basic education department of Dr. Carlos S. Lanting College. It was found that verbal bullying is the most occurring form of bullying in the school. It can be inferred that students have been doing this and they might be thinking that the acts are just ordinary and part of growing up. Also, it can be observed that there are few cases of physical bullying like punching or slapping, poking, patting, pushing, and the like. Similarly, some psychological/emotional bullying behaviors are likewise existing such as excluding who is not part of the peer group, laughing at someone who gets a lower score or a failing grade or even zero in the test, and funny watching other people get hurt or failed.

Their overall perceptions about the bullying behaviors were not statistically significant to their demographic profiles. This can be meant that their general feelings about bullying behaviors were not attributed by their profile.

The cause of bullying behaviors can be concluded that the influence of the family or parenting aspect is one of the chief factors that can contribute to how the students behave in the class, within the peer group, and in the school as a whole.

Further, school bullying clearly shows that it can influence on the academic aspect or performance of the basic education students. Also, it can be inferred that a school environment where there is existence of bullying may not be conducive for learning. It negatively strikes the academic aspect of the students.

Recommendations

In the light of the conclusions drawn by this research it is hereby recommended that the institution shall have a continuous observance and implementation of the Republic Act No. 10627 (Anti-Bullying Act), pursuant to the DepEd Order No. 55, series of 2013, the Implementing Rules and Regulations (IRR).

Further, there shall have an active and regular anti-bullying program that provides awareness and education for the entire community including administrators, teachers, staff members, students, and parents. Then, specific trainings shall be provided among the administrators, teachers, and staff members in order to be equipped with effective strategies to combat bullying behaviors.

Moreover, a strong home-school connection is recommended to create parental awareness of anti-bullying policies that provide guidelines for creating a positive and safe environment that fosters pro-social behaviors. Parents should be encouraged to view their school involvement as a responsibility.

Conducting lectures on nonviolence and human rights education shall be part of the curriculum to serve as a strategic move in instilling values among students.

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***The Relationship between Study habits, Attitudes, and Teaching Behavior
and Achievement in Learning of Bachelor Level Students
of Rajamangala University of Technology Lanna***

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Abstract

The research entitled the relationship between Study habits, attitudes, and teaching behavior and achievement in learning of bachelor level students of Rajamangala University of Technology Lanna aimed to 1) to study habits, attitudes, and teaching behavior and achievement in learning of Rajamangala University of Technology Lanna and 2) to study the relationship between Study habits, attitudes, and teaching behavior and achievement in learning of Rajamangala University of Technology Lanna undergraduate students.

The subjects were 1036 students sampled by Krejcie and Morgan; 357 students were from Faculty of Business Administration and Liberal Arts, 357 students were from Faculty of Engineering, and 322 students were from Faculty of Fine Arts and Architecture. The instruments used in this research were Study habits, attitudes, and teaching behavior questionnaire (Likert's scale) and achievement in learning record sheet. The data were analyzed by mean, standard deviation, Pearson product – moment correlation coefficient.

The results showed that;

1. Students' study habits, was at high level, attitudes and opinion towards teaching behavior were at fair level.
2. The correlation between study habits and achievement in learning was statistically significant at 0.01 level. The correlation coefficient of two variables was 0.246
3. The correlation between attitudes and achievement in learning was statistically significant at 0.01 level. The correlation coefficient of two variables was 0.311
4. The correlation between teaching behavior and achievement in learning was statistically significant at 0.01 level. The correlation coefficient of two variables was 0.542

Keywords: Study habits, Attitudes, and Teaching behavior and Achievement in learning

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Introduction

Education is a word that can be described as the improvement of human livelihood. It is well identified as human's knowledge and abilities, and also the growth of nation. Moreover, this can develop human's intelligence in cognitive, psychomotor, and affective domain and also enhance in terms of knowledge, thoughts, and morality in order to live happily.

Higher education has been conducted the students' knowledge indicators, which are called learning achievement indicators. They can assess the patience, attempt, and students' intention so the instructor has to assess the students according to teaching objectives. To enhance the students' to reach the expected learning achievement, there are various related factors such as students' habit, learning attitude, teaching behavior, classmates, and interpersonal difference.

Objectives

1. To study students' habit and learning attitude of bachelor degree students at Rajamangala University of Technology Lanna
2. To study the relationship between students' habit and learning attitude, teaching behavior, and the students' learning achievement

Methodology and methods

Population

The population used in this research were bachelor degree 11,370 students of Rajamangala University of Technology Lanna that had been enrolled for academic year 2016. (Registration office: 2016)

Faculty	Number of students		
	M	F	Total
Faculty of Business Administration and Liberal Arts	1411	3630	5041
Faculty of Engineering	3829	550	4379
Faculty of Fine Arts and Architecture	1020	930	1950
Total	6260	5110	11370

Subjects

The subjects used in this research were 1036 students selected by applying Krejcie and Morgan methodology. The subjects were from faculty of Business Administration and Liberal Arts, faculty of Engineering, and faculty of Fine Arts and Architecture.

Faculty	Number of students
Faculty of Business Administration and Liberal Arts	357
Faculty of Engineering	357
Faculty of Fine Arts and Architecture	322
Total	1036

Research instruments

The instrument used in this research was designed by researchers which was characterized by Likert Scale in collecting data consisted of closed questions about habits, learning attitudes and teaching behavior together with learning achievement. The instrument was validity according to experts' evaluation and suggestions. The content of each items was valid (IOC: Index of Congruence) and reliability. The Alpha Coefficient: α according to Cronbach was used to find the reliability. The learning habits of questionnaire was reliable at 0.76, the learning attitude was reliable at 0.76 and the teaching behavior questionnaire was reliable at 0.74.

Data analysis

The data were analyzed according to these steps; (1) the data were collected and analyzed, and (2) the data were analyzed by the mean score, the standard deviation, and Pearson product – moment correlation coefficient

Results

The subjects in this research were Bachelor degree students from Rajamangala University of Technology Lanna. There were 287 male students which was 51.81% and 267 female students which was 48.19%, total number was 554 students.

This table shows the number of students according to the age range;

Age range	Number of students	Percentage
26 – 30	5	0.90
20 - 25	525	94.77
20 or less than	24	4.33

This table shows students' grade point average from faculty of Business Administration, faculty of Engineering, and faculty of Fine Arts and Architecture;

Grade point average (GPA)	Number of students	Percentage
3.50 – 4.00	41	7.40
3.00 – 3.49	191	34.48
2.50 – 2.99	205	37.00
2.00 – 2.49	104	18.77
20 or less than	13	2.35

The results of students' habit, attitude, and teaching behavior are show as follows;

Faculty of Business Administration and Liberal Arts

The overall result about students' habit is good level consists of (1) attending every classes and on time, (2) submitting assignments on time, and (3) taking notes for main ideas. The least result about students' habit is reading prepared handouts for the next class.

The overall result about attitude is good level consists of (1) learning results in good career path, (2) learning leads to country development, and (3) learning brings about good relationship. The least result about attitude is learning results in depressed life.

The overall result about teaching behavior is fair level consists of (1) instructors always answer to students' questions, (2) instructors threat students equally, and (3) instructors are well-prepared for the class. The least result about teaching behavior is instructors can differentiate the problematic contents and find the solutions with scientific ways.

Faculty of Engineering

The overall result about students' habit is good level consists of (1) paying attention in class, (2) sharing and learning among classmates, and (3) following up the class when absence. The least result about students' habit is chatting and talking to classmates.

The overall result about attitude is fair level consists of (1) learning results in good career path, (2) learning leads to up to date knowledge and abilities, and (3) learning brings about good relationship. The least result about attitude is learning brings about being bad person.

The overall result about teaching behavior is fair level consists of (1) instructors arrange happy learning classroom, (2) instructors teach according to students' interest and needs, and (3) instructors usually observe students while learning. The least teaching behavior is instructors encourage students to think creatively which leads to self-learning.

Faculty of Fine Arts and Architecture

The overall result about students' habit is fair level consists of (1) paying attention to the class, (2) asking questions, and (3) applying knowledge from what students have learned in class. The least result about students' habit is chatting and talking to classmates.

The overall result about attitude is fair level consists of (1) learning results in good career path, (2) learning leads to up to date knowledge and abilities, and (3) learning brings about good relationship. The least result about attitude is learning brings about being bad person.

The overall result about teaching behavior is fair level consists of (1) instructors arrange happy learning classroom, (2) instructors encourage students' experiences to use in their daily life, and (3) instructors are well-prepared for the class. The least result about teaching behavior is instructors' teaching are impressive.

Overall results

1. Students' study habits, was at high level, attitudes and opinion towards teaching behavior were at fair level.
2. The correlation between study habits and achievement in learning was statistically significant at 0.01 level. The correlation coefficient of two variables was 0.246
3. The correlation between attitudes and achievement in learning was statistically significant at 0.01 level. The correlation coefficient of two variables was 0.311
4. The correlation between teaching behavior and achievement in learning was statistically significant at 0.01 level. The correlation coefficient of two variables was 0.542

The results of relationship between students' habit and attitude, and teaching behavior together with learning achievement shows that coefficient correlation between habit and attitude in learning, and teaching behavior together with learning achievement is at 0.246 to 0.542. The result means that learning attitude is positively related to learning achievement significantly different at .01

Discussion

From the research results of the relationship between habit and learning attitude, and learning achievement show that coefficient correlation between habit and attitude in learning, and teaching behavior together with learning achievement is at 0.246 to 0.542. The result means that learning attitude is positively related to learning achievement significantly different at .01 which relates to the research hypothesis and Duangduan Panthumanawin (1976:174). She has claimed that "when students are interested in learning, they are willing to learn however some has bad attitude, they are not willing to learn."

Moreover, Sucha Chan-aim and Surang Chan-aim (1978:78) and Surang Khotrakul (1993:191) also stated that if students have good attitude towards learning, they can learn effectively, in contrast, if they have bad attitude, they may be bored and not willing to learn anymore.

Conclusions and recommendations

Developing students to have positive attitude towards learning;

- Supporting students every time they show the positive attitude towards learning, letting them know the values and rewarding them
- Setting up a group including both positive and negative students, assigning them to discuss

Developing students to have good learning habits;

- Instructors may provide some useful information such as teaching schedule, working and learning environment, effective learning, note-taking and etc.
- Instructors may practice and provide some effective learning techniques and always follow up their students.

The logo for the International Association of Faculty of Online Research (iafor) is centered on the page. It consists of the word "iafor" in a light blue, lowercase, sans-serif font. The text is surrounded by two large, concentric, semi-transparent circular arcs. The inner arc is a light red color, and the outer arc is a light blue color, matching the text. The arcs are not complete circles, leaving gaps at the top and bottom.

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The Relationships between Learning Experiences, Psychological Capital, and Student Engagement in Taiwan's College Freshmen

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Abstract

The main purpose of this study is to investigate the relationships between learning experiences, psychological capital, and student engagement. This study adopts the database management system about learning process and performance. Participants were 873 freshmen from a college in Taiwan. The data were analyzed by descriptive statistics, ANOVA, and multiple regressions. And the findings are summarized as follows: (1) the best predicting effect of student engagement on college freshmen is internal learning experiences in high school, (2) the internal learning experiences in high school, psychological capital, hope, and external learning experiences in high school can predict student engagement for explained variation of 56.3% (3) Freshmen who are more confident had higher mean scores in learning experiences during high school, psychological capital, and student engagement than the less confident ones.

Keywords: learning experiences, psychological capital, student engagement

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Introduction

Past research indicates that the most important period in college is the first year because previous school problems and habits of freshmen tend to affect their learning engagement. Education authorities should emphasize on knowledge and economy as goals of personnel training (Chen, 2010). Our freshmen enrolled through different ways, including school recommendation, individual applications (and general characteristics of the group), general examinations, foreign-born science, refresher courses bachelor, etc. They include those who showed poor performance before they enter college, recruited during high school who had excellent academic performance, and those from other countries (such as Malaysia and Macau) who face difficulty in attending a Taiwanese high-quality university. Because of the population diversity of freshmen, the researchers found that students from abroad (mainly for overseas students) differ in terms of preferred learning process and academic achievement performance when compared with local students. However, the observation must depend on the analysis of school data for verification. This study's variables refer to the Institutional Research (IR) regarding on the relationship between high school students' learning experience, learning engagement and psychological capital.

Researchers often reflect why students enrolled in different ways had different learning experiences. Are local students and foreign students in the past having different learning experience? It triggered researchers' curiosity. It is worthy to analyze and discuss whether students who obtained experience from actual school life had a better learning experience, whether it can improve the state of psychological capital, and had better learning engagement as a result.

Learning experience refers to the interaction between the learner and the external environmental conditions. It means that student reactions to the environment may have interesting roles (Tsai & Huang, 1999). The more effort they put on learning engagement (including academic and non-academic), the more it becomes valuable for campus sophisticate. And it can improve students' learning engagement. This conclusion has been repeatedly confirmed by subsequent studies (Gonyea, Kish, Kuh, Muthiah, & Thomas, 2003). University's learning model nowadays is different from the past education stages. Teaching mode in universities pay more attention to students' learning experience and understanding their past learning experience, which can help teachers in the curriculum design.

Luthans, Luthans, and Luthans (2004) combined positive psychology and positive organizational behavior for the theoretical framework. After analyzing the characteristics of the traditional economic capital, human capital and social capital, they put forward the "psychological capital" concept to people as the core power of positive psychology. Luthans and colleagues believe that psychological capital is beyond the traditional definition of capital. It can be developed to increase an individual's competitive advantage. Psychological capital is a positive psychological individual state of development when it has a positive psychological construction. It has the following characteristics: possess confidence to take responsibility and effort for something challenging, do a positive attribution to achieve present and future success, follow this belief to persevere and achieve goals, ability to restart the target and direction when necessary, maintain or exceed current situation, and grasp the concept of success (Luthans, 2002; Luthans, Youssef, & Avolio, 2007).

Recently, domestic and foreign research pointed out that “learning engagement” can view student learning results for important variables. This means that students continued to perform behavioral and psychological involvement in the learning process with the positive emotions, showing the learning result (Li & Sun, 2010). Learning engagement plays an important role in the students' learning process (Lin & Huang, 2012). Kuh (2003, 2009) believes that the “learning engagement” means the behavior of individual students in learning, feeling and thinking course. The most important indicator is when the student devotes time and effort to activities as educational objectives. Students must interact with other people in order to make these educational activities meaningful (Zhang, 2012). For students, the height of individual engagement in the learning process is not only beneficial to their learning result but to enhance the effectiveness of teachers. Therefore, it is important to pay attention to the student's input conditions and then determine how to help them more in their studies (Lin & Huang, 2012).

College students have more psychological capital. Can we improve their learning engagement? First, we should note that psychological capital for their individual dimensions (optimism, hope, self-efficacy and resilience) and learning engagement is not suitable to separate instructions, and we value the overall effect of psychological capital. Secondly, based on the past psychological development of students, if college students actively participate in various communities (like community or volunteer groups), their participation in the process of sharing and interactive course will promote the different dimensions of psychological and social development. This is good for training individuals to face setbacks and challenges (Lu, 2004; Huang, 2002; Chickering & Reisser, 1993). Students at this stage face with the interaction between self-demand and social requirements. The ensuing crisis of development and the need to learn will complement each other for students with a better psychological capital state, encouraging active involvement in learning (Zhang, 1996).

Because of the above background and motivation, this study aims to use Institutional Research data provided by the responsible authority to submit information and to release an application for a freshman in high school learning experience. Learning and psychological capital investment relations were analyzed to identify the protective factors that affect freshman.

This study aims to:

1. Explore the high school learning experience of freshmen, their psychological capital, learning engagement and investment in the current situation.
2. Discuss the relationship between a freshman's high school learning experience, psychological capital, and learning engagement.
3. Analyze and forecast the school learning experience, psychological capital, and learning engagement of freshmen.

The meaning and capacities of learning experience

Dewey thinks that real education comes from experience but not all are equipped with educational value or bring growth (Dewey, 1938: 13). Some experiences are nothing but daily awareness. In fact, some have the wrong educational value, twisted growth, and hinder depth study of experience. It is difficult to determine whether learning experience can help in growth. Because experience is a dynamic force, Dewey

emphasized the experience of continuity and interaction. Continuity refers to the transition from the past experiences and events to the current event, and then transition to future events. Interaction refers to the experience produced by the current event and situation that can be communicated and interacted. These are the important foundation for experiential learning. The focus here is how we make it easy to lead learning situations. A possible approach is to create a pleasant and comfortable atmosphere, provide appropriate materials, and connect the past and future experiences with learners and other textbooks (Merriam & Caffarella, 1999). This study suggests that learning experience is holistic, which means that learning experience and learning ability of students in a self-assessment study during high school level are effective.

The meaning and capacities of psychological capital

After analyzing the traditional human capital, social capital, and other traditional investment in human resources development characteristics, Luthans and colleagues (Luthans, Luthans, & Luthans, 2004; Luthans & Youssef, 2004) proposed the psychological capital in the concept of positive organizational behavior which is affected by positive psychology. It focuses on the individual positive strengths and mental ability driver which is not discussed from the traditional concept of organizational behavior (Hui Zeng, Limin Zhao, 2007). Luthans et al. believe that under the current environment to hypercompetitive, the status of human capital or social capital has been insufficient to obtain and maintain the long-term competitive advantage and should have the development and “psychological capital” (Luthans, et al., 2004). Researchers of positive organizational behavior attributed the studies of Luthans et al. (Luthans, 2002; Luthans & Youssef, 2007; Luthans et al, 2007.) and proposed that psychological capital contains four factors, which are “self-efficacy”, “hope”, “optimism”, and “resilience.” Other four factors combination is a unique, measurable, and trainable mental state of development. Therefore, Luthans et al. (2007) combined these four theories, collectively referred to as “psychological capital”. In fact, from the angle of measured in terms of psychological capital is a concept of latent variable and consists of four explicit combinations of variables, like Li Xinmin (2009) mentioned. It is an academic community consensus built to be defined by a measurable facet. It’s an essential meaning as the addition of facets and change. Psychological capital is a formative measurement model. Luthans et al. suggest that each facet should be merged to calculate the score. This measurement is mostly measured by the subject’s self-assessment of psychological capital state as a reference index for follow-up group in an intervention program.

The meaning and capacities of student engagement

Recently, learning engagement becomes increasingly popular. There are many researchers who are interested in learning engagement developed many theories to support its used and measure student learning outcome and achievement (Trowler & Trowler, 2010, 9Zepke & Leach 2010a). Some researchers believe that learning engagement is a multi-faceted structure, complex and multivariate. It aims to promote the reason for student success (Fredricks, Blumenfeld & Paris, 2004).

The earliest use of the term of engagement is by Natriello (1984) who proposed that student learning engagement refers to the participation of students in the school

curriculum activities. The definition of learning engagement includes student's behavior, experience, and reflection in the course of learning. But the most important thing is the students' level of effort required to have educational goals, the amount of time spent on activities, and interaction with others make educational activities more meaningful (Kuh, 2003, 2009). Chapman (2003) also indicated that learning engagement can also be a voluntary participation of students in school activities, including attendance so that they can accept the assignments and comply with their teachers.

Learning engagement involves high level of participation, effort, persistence, focus, and happiness to allow students to have a positive progress and good performance (Jingyuan Zhang, 1997). In contrast, those who have lower engagement have low learning time, easily give up and get distracted, sad and feel anxiety which is also associated with a high degree of dropouts (YuLing Chen, 2003). It can also reflect the degree of behavior and emotion of individual students and the degree of their academic performance and persistence (Yimei Li, Song Xian Sun, 2010). Xuemei Chang (1999) pointed that positive campus engagement, cognitive learning, and self-development have a significant positive correlation. Kuh's (2003) research also found that fewer college students invest more time in different activities than those who have a higher value of self-affirmation. In summary, learning engagement not only promotes academic performance positively but also develops positive value. Therefore, the dependent variable of this study is learning engagement and it aims to better understand it. Students have different kinds of school activities. This study is intended to learning engagement and focuses on students' academic learning situation. The concept of learning engagement in the study is the basic definition of Glanville and Wildhagen (2007). They suggest that students should have a curriculum, behavioral and psychological involvement, and learning engagement can significantly affect the educational result.

Learning experiences, psychological capital, and student engagement

Pascarella and Terenzini (1991) pointed that the most important factor for students to learn in the university is the school experience itself, which includes interactive teaching quality of teachers, interaction between students and teachers, students and peers, the effect of student affairs programs, the strength of academic experience, and the overall standard of school activities. Students' learning does not only involve on the efforts of educators but also student participation. Astin (1993) believes college students' experiences of participating in campus activities will influence their learning results. In the learning process, learning engagement is needed to actively participate in learning activities.

Hope, resilience, self-efficacy, and other psychological factors can significantly predict learning engagement (Huang, 2012). Yi Ding and Yueming Chang (2014) found that psychological capital for learning engagement of Chinese students has a significant predictive effect. Although the students' psychological capital level is above average due to the psychological capital state, categories, and features, this is a relatively stable and can develop a mental state and improve student learning engagement through the involved program of psychological capital.

Method

Data source

This study used data from Institutional Research (IR). The application has been proposed for the data which was released by a responsible authority, the administrative units of the audit, based on research ethics to protect the subjects.

Measures

1. Learning Experience Scale

Learning experience contains continuity (such as questions in class, trying to find answers to questions, understand and explain to others, the idea of classroom applies to other courses or activities), interaction (such as exploring the theme of self-interest even if the request is not in the classroom in order to discuss the logic to support their idea, the need to integrate different information or opinions in thematic implementation), and integrity (such as learning outcomes, learning experience, and learning ability). The results of this study show the model to achieve a good adaptation ($\chi^2 = 124.27$, $df = 24$, $GFI = .97$, $CFI = .98$, $NFI = .96$, $RMSEA = .065$, $SRMR = .044$) and the standardization of all topics factor loadings above .50 was reached.

2. Psychological capital scale

Psychological capital refers to psychological resources owned by individuals, including the four factors, "self-efficacy", "hope", "optimism", "resilience," and etc. Researchers used the models of Yu, Chen & Tang (2012) to prepare the Psychological Capital Scale as a measuring tool. Scale content is determined in reference to the studies of Luthans et al. who constructed the psychological capital connotations (self-efficacy, hope, optimism, and resilience) as measurement dimensions. There was a total scale of 12 questions, each 3 questions for each subscale. Its evaluation is based on a Likert-type 5-point scale, where 1 means "very consistent with" while 5 means "very much in line." The scores for each of the questions were added to determine the higher degree of students' psychological capital.

The psychological capital scale includes 12 questions in four factors. Self-efficacy Cronbach's α was .84, hope Cronbach's α was .81, resilience Cronbach's α was .82, and optimism Cronbach's α was .86. Various factors showed a good reliability. The results of this study show the model to achieve a good adaptation ($\chi^2 = 245.49$, $df = 48$, $GFI = .96$, $CFI = .97$, $TLI = .96$, $NFI = .96$, $RMSEA = .064$, $SRMR = .033$). The standardized factor loadings of all topics were .50 or more.

3. Learning Engagement Scale

In recent years, "engagement" becomes an important variable to understand student learning results. This means students' ongoing performance needs behavior and psychological learning involvement, and positive emotion to improve learning outcomes.

Learning engagement, students are committed to educational activities inside and outside of the classroom and learning experience that require time and energy (Astin, 1984, 1985; Kun, 2003). The Learning Engagement Scale used by Lin and Huang (2012) is divided into five subscales, which include skills (4 items), emotional (5 questions), performance (4 questions), attitude (4 items) and interactive (3 items) subscale. Learning engagement often becomes a predictor of low academic achievement and dropout (Fredricks, Blumenfeld, & Paris, 2004; Skinner & Belmont, 1993). Questions about “skills” refer to the ability of college students to remember the teaching materials and curriculums while questions about “emotion” refer to the relationship of college students with classmates and teachers. Questions about “performance” include the attention of college students in class or lack thereof. “Attitude” questions refer to items on how college students deal with their courses. “Interactions” questions involve the interaction of college students with classmates and teachers in the classroom. This scale has a total of 16 questions in the measurement process and has a five-point evaluation. 1 means “very incompatible”, 5 means “strongly agree”, and so on. The scores for each of the questions were added. Those with higher scores represent higher degree in learning engagement.

Learning Engagement Scale is divided into five factors with a total of 15 questions, Cronbach's α in skills is .76, Cronbach's α in performance was .68. Cronbach's α value of attitude is .88, emotional Cronbach's α is .73, while interactive Cronbach's α is .91. Measurement mode analysis showed that the model of this study achieved a good adaptation ($\chi^2 = 309.71$, $df = 80$, $GFI = .96$, $CFI = .97$, $TLI = .96$, $NFI = .95$, $RMSEA = .054$, $SRMR = .047$), except for “I rarely late.” The standardized factor loadings for all topics were .50 or more.

Data Collection Procedure

The descriptive statistics and correlation analysis used in this study is SPSS version 21, the advanced analysis using structure equation modeling (SEM) to test the combination of the measurement tools in terms of reliability and average variance extracted amount. It also used the Path Method to test the theoretical relationship between the respective latent variables and mediation effect and the software AMOS version 21. The parameter in SEM used the maximum likelihood estimation (MLE). To verify the mediation effect of using bootstrap method and in accordance with Byrne (1994), Hu and Bentler (1999) suggest GFI, CFI, NFI (above indicators must be greater than .90), RMSEA (must be less than .08), and other four indicators as the judge model to fit the prospective basis.

Results

Preliminary Analyses

Means, standard deviations, and zero-order correlations for the 11 measured variables are shown in Table 1. All means of observed variables range 2.72-3.69, and SD ranges at 0.45-0.86. Multivariate normality test was used to examine whether the data met the normality assumptions underlying the maximum-likelihood procedure used to test the models in the present study. The results of the multivariate normality test indicated that the data were multivariate normal, with multivariate kurtosis of < 3 . Therefore, the maximum-likelihood method was appropriate.

Measurement Model

Before a structural model is tested, Anderson and Gerbing (1988) suggested conducting a confirmatory factor analysis to examine whether the measurement model provides an acceptable fit to the data. Once an acceptable measurement model is developed, the structural model can be tested.

As suggested by Tucker and Lewis (1973), Byrne (1994), Hu and Bentler (1999), five-fit indices were used to assess the goodness of fit for the models: the goodness of fit index (GFI value of $>.90$ indicates a good fit), the comparative fit index (CFI value of $>.90$ indicates a good fit), the Tucker-Lewis Index (TLI value of $>.90$ indicates a good fit), the non-normed fit index (NFI value of $>.90$ indicates a good fit), and the root-mean-square error of approximation (RMSEA values of $<.10$ indicates a mediocre fit).

A test of the measurement model resulted in a relatively good fit to the data ($\chi^2 = 371.95$, $df = 41$, $GFI = .93$, $CFI = .97$, $NFI = .97$, and $RMSEA = .09$). All of the standardized loadings of the measured variables on the latent variables were greater than .33 and statistically significant ($p < .001$, see Table 2). CR of latent variables range is .71-.88, AVE range is .45-.65, both CR and AVE fit to the standard suggested by Fornell and Larcker (1981) and Hair et al. (2010). Therefore, all of the latent variables appear to have been adequately operationalized by their respective indicators. In addition, correlations among the independent latent variables, the mediator latent variable, and dependent latent variables were all statistically significant ($p < .001$, see Table 3).

Table 1

Means, standard deviations, and zero-order correlations matrix (all sample, $n = 873$)

Observed variable	Mean	S D	1	2	3	4	5	6	7	8	9	10	11	12
1. Continuity	2.75	.59	1											
2. Interaction	2.60	.61	.46	1										
3. Integrity	2.72	.61	.45	.46	1									
4. Self-Efficacy	2.88	.46	.42	.31	.48	1								
5. Hope	3.14	.46	.36	.32	.38	.58	1							
6. Optimism	3.03	.45	.33	.29	.36	.61	.67	1						
7. Resilience	3.06	.51	.30	.24	.37	.58	.70	.71	1					
8. Skills	3.69	.64	.37	.45	.43	.41	.44	.37	.35	1				
9. Emotional	3.34	.64	.37	.41	.40	.40	.38	.33	.32	.48	1			
10. Performance	3.65	.73	.48	.46	.42	.46	.49	.43	.38	.66	.48	1		
11. Attitude	3.57	.65	.29	.22	.28	.38	.44	.39	.46	.41	.42	.39	1	
12. Interactive	2.85	.86	.59	.41	.40	.45	.40	.39	.38	.40	.54	.45	.46	1

Note: All values of correlation are significant ($p < .001$).

Table 2
Model Fit Indices

Indices	structural model	criteria
N	873	
χ^2	371.95	
df	41	
GFI	.93	>.90
CFI	.97	>.90
NFI	.97	>.90
RMSEA	.09	<.10

Table 3
Factor Loadings for the measurement model (n = 873)

Factor & Item	Standardized factor loading	SE	t	AVE	CR
Learning Experience (LEx)				.45	.71
Continuity	.69	.44	21.05		
Interaction	.66	.48	19.92		
Integrity	.67	.45	22.07		
Psychological Capital (PC)				.65	.88
Self-Efficacy	.73	.53	---		
Hope	.83	.68	23.40		
Optimism	.83	.69	23.47		
Resilience	.83	.69	23.47		
Learning Engagement (LE)					
Skills	.72	.52	---	.47	.82
Emotional	.67	.45	18.43		
Performance	.76	.58	20.68		
Attitude	.58	.33	15.79		
Interactive	.69	.48	18.87		

Note: All standardized factor loading are significant ($p < .001$).

Table 4
Correlations matrix for the measurement model (n = 873)

Latent Variables	1	2	3
1. Learning Experience (LEx)	1		
2. Psychological Capital (PC)	.51***	1	
3. Learning Engagement (LE)	.67***	.62***	1

*** $p < .001$

Structural Model for Testing Mediated Effects

The results showed a good fit of the model to the data ($\chi^2 = 371.95$, $df = 41$, $GFI = .93$, $CFI = .97$, $NFI = .97$, $RMSEA = .09$). Path effect is frequently referred to as the direct effect. All the effect size of structural paths were medium ($\gamma_{11} = .62$, $\beta_1 = .27$) and significant ($p < .001$, see Table 2).

MacKinnon, Lockwood, Hoffmann, West, and Sheets (2002) assessed many approaches to examine mediation to consider the Type I error and the statistical power. They found that the most often used strategy is one by Baron and Kenny (1986) which has the least power (both γ_{11} and β_1 have to be significant). Then, many studies using this approach have relied on the Sobel test (1982) to examine the significance of the mediation effect ($\gamma_{11} * \beta_1$ have to be significant). However, there is an evidence that the distribution of the mediation effect is not normal (Bollen & Stine, 1990; MacKinnon & Dwyer, 1993; Stone & Sobel, 1990) and the utilization of a significance test, such as the Sobel test which assumes a normal distribution when examining the mediation effect, is not appropriate. Most recently, Shrout and Bolger (2002) suggest the bootstrap method as a better way to examine the mediation. The bootstrap method acquires 95% confidence intervals (CI) for the indirect effect by the resampling procedure. Based on the central limit theorem, bootstrap method is robust even the distribution of mediation effect is not normal.

As Shrout and Bolger suggested, if the 95% CI for the estimates of the indirect effects based on these 5,000 indirect effect estimates does not include zero, then it can be concluded that the indirect effect is statistically significant at the .05 level. Therefore, after the structural models were examined through the AMOS 20 program, the bootstrap procedure was used to test whether or not the indirect effects were statistically significant.

The mediation effect, which is frequently referred to as indirect effect ($\gamma_{11} * \beta_1$), was .17. The 95% CI for the estimates of the indirect effects ranging .12-.22 does not include zero. It can be concluded that the indirect effect is statistically significant at the .05 level as shown in Table 5. For residential college students, PC plays a role as the mediator between LEx and LE. The results of the structure model show that the theory model can explain the psychological outcome gains well for residential college students. Both hypotheses were supported. In addition, our model is a partial mediation based on the theory of Baron and Kenny (1986) that the direct effect is still significant. Other effective mediators can be taken into consideration in the future.

Table 5
Bootstrap Analysis of Structural Model (n = 873)

Direct effect			Indirect effect	
γ_{11}	β_1	γ_{21}	$\gamma_{11} * \beta_1$	95% CI
.62***	.27***	.17	.17	.12~ .22

Note: *** $p < .001$

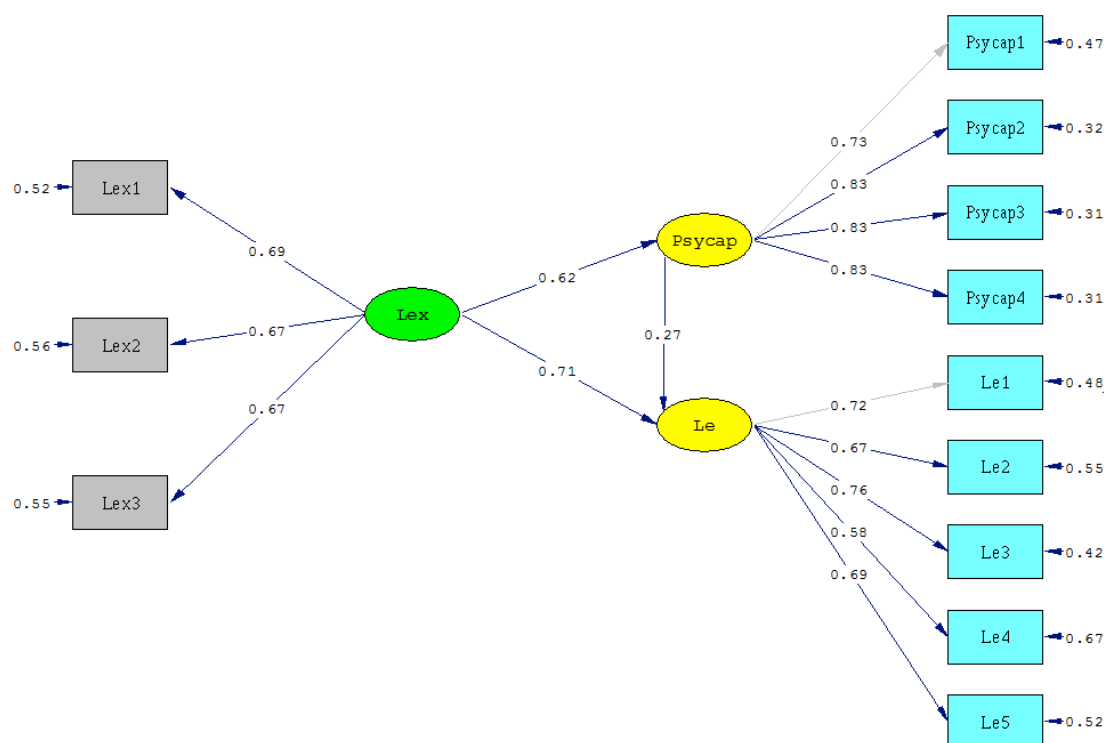


Figure 2
Full model

Discussion

This study used the convenience sampling and investigated the relationship between learning experiences, psychological capital, and student engagement. Investigating the effective psychological capital has important implications for an increase of learning experiences and student engagement.

The main focus of this study was to determine whether psychological capital has a mediation effect on the relationship between learning experiences and student engagement. The findings indicate that psychological capital and learning experiences are interrelated and psychological capital does act as a mediation variable. Through psychological capital, the learning experience in student engagement can be a better predictor. It proposes to increase the students' psychological capital during class, including self-efficacy, hope, optimism and resilience, which can improve engagement results.

Because this study used data from IR and the age sample were college freshmen, it did not generalize to other age groups. It recommends that future studies increase the diversity of the sample to improve the validity. These results suggest that the quality of student engagement could be enhanced if institutional research focused closely on engagement at sub-institutional levels such as courses.

Furthermore, the Learning Experience Scale developed by the current research still has room for improvement. It is recommended for future researches to change some item's wording, or choose survey participants more carefully in order to improve the structural problems in the survey model.

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Leadership and Civic Engagement of Myanmar Refugee Students in the United States: Experiences, Influences and Aspirations

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Abstract

The refugee youth's involvement in civic engagement and leadership means an access to other opportunities in life, such as social recognition, psychosocial well-being, rewarding relationships and connections, exposure to professional employment, and ability to advocate for oneself and for his/her community (Flanagan and Levine, 2010; Flanagan and Bundick, 2011). Likewise, student civic engagement brings significant social, economic, and civic benefits not only to refugee community, but also to the mainstream society as a whole (Jensen, 2008). By applying ethnographic lens, this study examines aspirations, influences and experiences of Myanmar refugee students who are currently active in their communities in the United States. Through disappointments and frustrations of community disunity, unchangeable egos of leaders and serious mistrust among ethnic groups, Myanmar students see the need for unity, collaboration, mutual respect and forgiveness. As such, their civic engagement aspirations and leadership activities are significantly shaped by their collective Myanmar identity and the sense of unity that they acquired through their lived experiences while they were in Myanmar and after resettled in the United States. Myanmar refugee students found a rallying point at reinforced national identity, and the need of unity within Myanmar community and among different refugee ethnic groups from Myanmar. Their narratives and reflections subtly show that unified identity as Myanmar student leaders and community unifiers—reinforced by their community attachments and social ties—is the major influence that empowers them to actively participate in the civic engagement activities in the United States.

Keywords: Myanmar Refugees, United States, Student Civic Engagement, Aspirations, Influences

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Introduction

For more than four decades, Myanmar (also known as Burma) has been struggling with civil wars, ethnic insurgencies and political turmoil, and consequently the international Myanmar diaspora had come to an existence due to continuous persecutions and displacement of populations (United Nations General Assembly, 2010). Some 140,000 refugees from Myanmar's main minority groups—along with former political prisoners and pro-democracy activists—have been living in nine isolated and closed camps on the Thai-Myanmar border for more than 20 years, and it has become the largest refugee settlement in Southeast Asia. Since the late 1990's, the United States has resettled about 100,000 refugees from Myanmar, and about 8,000 of them were resettled in the City of Clemens metro area (NYS BRIA, 2014).

Like all other refugees—due to sociocultural barriers, lack of language skills, limited access to education—majority of Myanmar refugees are failing to integrate into mainstream community and to achieve upward social mobility, even after several years of initial resettlement in the United States (Vang and Trieu, 2014). Likewise, it is observed that Myanmar refugee groups are very unfamiliar with civic engagement and collective decision-making processes that could impact refugee community well-being and social mobility. However, I have noticed the emergence of a handful of Myanmar refugee college students who are active in civic engagement and community leadership in the City of Clemens metropolitan area. The civic engagement of immigrant youth is crucial, because such activities not only pave way for immigrant communities to achieve greater political leverage and fair distribution of services, but also give young people better academic and career opportunities (Levine, 2008). In this qualitative study, I explore how Myanmar refugee students narrate and reflect upon their civic engagement experiences, and what socio-cultural factors influence their experiences and aspirations.

“Myanmar” versus “Burma”

Before I move on to discuss civic engagement of Myanmar refugee students in the City of Clemens metropolitan area, it is important for me to resolve the naming dilemma of their country of origin since it will play a critical role in explaining participants' identity formation later in the study. Lowell Dittmer (2010), a renowned political scientist and East Asian scholar, argues that the issue is both historical and political, and the controversy surrounding the name started with the political circumstances under which it was renamed. In fact, it was the military junta who staged a successful coup in 1988 renamed the country from “Union of Burma” to “Union of Myanmar”. During the British colonial rule, the name of the country was simply Burma—a name derived from the indigenous ethnic majority group, called “Burmans”.

Dittmer (2008, 2010) proposes that there are two contrasting arguments about the name change: 1) the junta argues that as the name “Burma” was bequeathed by the colonialists it needs to be replaced with a more traditional name, and “Myanmar” symbolizes freedom from the British colonial legacy; and 2) the term “Burma” refers to only one group of people, while the usage of “Myanmar” is inclusive of all ethnic nationalities of the country. However, in Burmese or Myanmar language, Burma is known as either “Myanma” or “Bama”, and “Myanma” is the written, literary name of

the country, while “Bama” is the spoken name of the country. In terms of meaning, there is no difference, as both names more or less refer to the majority group of people in the country. I need to note the significance of this naming dilemma in my study, because all participants, except one, identify themselves as “Myanmar” and insist that I use as is in my report. It is due to the fact that all participants grew up under military dictatorship, and most of them attended state-sponsored secondary schools where they were taught to regard “Myanmar” as inclusive term.

Literature Review

Civic engagement, indeed, is a much contested term, and scholars agree that it may take different shape and form based on political characteristics, cultural backgrounds, and societal beliefs. Levine (2008) suggests that the definition of civic engagement itself varies depending on people’s conception of the good society and beliefs about how individuals should behave. Small business ownership, responsible childrearing, tackling racism and discrimination at neighborhood level, participating in civil disobedience to counter unjust laws, joining the military to defend national values, or perhaps staging an uprising can all be counted as civic engagement. Regardless of the variation, civic engagement activities are essential pillars of civic society, because such activities enhance capacity and performance of communities, institutions and social groups (Putnam, 2001). A society with higher level of civic engagement is least likely to produce corruption, oppression and narcissism of the state due to fine-tuned checks and balances presented by active citizenry. In fact, “civic engagement is a kind of arbiter of other social goods, such as aggregate income, economic equality, personal liberty and security from crime” (Levine, 2008, p. 102).

As such, civic engagement of young students is especially critical, because it allows youth to understand the power of civic capacity, shared leadership and collective decision-making, and to experience values and benefits of democratic practices during their formative young adulthood (Sears and Levy, 2003; Levine, 2008). Youth who have been involved in civic engagement activities perform better in academics, peer relationships, and overall health (Davila and Mora, 2007; Lerner, 2004; Zill et al., 1995). In addition, civic engagement gives youth positive motivations, beneficial peer networks, self-perception and feeling of worth, and career development opportunities (Levine, 2008; Soria et al., 2015). Immigrant youth in the United States, in particular, are positively impacted by civic engagement, as it channels them to integrate into new society, and to get acquainted with new social norms and practices. Although immigrant youth’s civic engagements closely resemble that of their non-immigrant peers, many major differences can be observed (Levine, 2008).

Unlike non-immigrant students, immigrant youth center their civic engagement around collective needs and issues of their own communities. Mainstream civic engagement activities—such as, voting in elections, participating in political campaigns, and joining political parties or causes—are almost non-existence among immigrant youth, because many of them are yet to become the United States citizens, or are disenfranchised as undocumented immigrants in worst case scenarios (Hosang, 2006; Jensen, 2008; Stepick, Stepick, and Labissiere, 2008). Likewise, their aspirations and motivations to participate in civic engagement also differ from that of non-immigrant peers.

Arab-American students, for instance, participate in civic engagement to overcome negative stereotypes of Arabs and Muslims, as well as to counter overly simplified media portrayal of Islam and its cultural aspects (Read, 2014). Latino students participating in 2006 anti-restriction and anti-discrimination protests were motivated and empowered by immigrant identity, sense of responsibility, and communal ties (Levine, 2008). Miami Latino youth—especially college students—attended daily demonstrations against the deportation of Elián, because they felt that they were treated differently than other Americans, and that they needed to express solidarity with other Latinos. Unexpected awareness of their “otherness” prompted them to reconsider their position in the United States, and encouraged Miami Latino youth to participate in civic engagement activities (Stepick, Stepick, and Labissiere, 2008).

Although existing literature extensively discusses both importance of student civic engagement and variations among immigrant and non-immigrant youth, there is a research gap in understanding influences, aspirations and experiences of civic engagement among refugee youth—Myanmar refugee students in particular. Chan (2011) conducted an exploratory study of civic engagement among Asian immigrant college students, and studied “facilitators and barriers” to civic engagement, as well as benefits and positive consequences resulting from civic engagement activities. Chan posits that civic engagement of Asian immigrant students are both intricate and subtle, as greater level of family obligation rather than well-being of the community or larger society is usually found among this particular group. In addition, she argues that Asian immigrant youth may have struggled to cope with cultural differences between mainstream American culture and their native culture, while embarking on civic engagement journey as young adults.

Drawing on the methodological framework of Strauss and Corbin (1998), Chan carefully explored “factors related to Asian American college students’ civic engagement” (2011, p. 198). She sought participants’ explanations on how they decided to participate in civic engagement activities, and the relative impact of such participation. Her study highlights relational, identity, and acculturation gap factors that influence Asian American immigrant students’ civic engagement, and competence, confidence, connection and character development they have achieved as the result of their participation in civic-oriented activities. Chan purports that Asian immigrant students are most civically engaged when they see their family members—especially siblings—close friends, and peers at school participating in civic engagement activities. As such, social identities of Asian immigrant youth compel them to see the value of civic engagement, and attract them to ethnic organizations, clubs and social gatherings. Religious activities, cultural events, and association with other active Asian immigrant students, in turn, reinforces their ethnic and social identities. However, they also face challenges and pushbacks from their own families, as most Asian immigrant parents consider civic engagement activities as interference for academics.

Regardless of the differences in influencing factors, Asian immigrant students achieve fulfilling experiences as the result of their involvement in civic engagement activities. Through their participation in civic engagement, immigrant students acquire “skills that would be beneficial to their future careers”, develop long-lasting friendships with peers, and build a stronger connection to their academic institutions (Chan, 2008, p. 201). In addition, students’ awareness of larger societal problems and social justice

issues increases, as they are more connected with their own communities (Chen, 2008; Stepick, Stepick and Labissiere, 2008).

Design and Methodology

Rationale, Researcher's Reflexivity and Positionality

Based on Chan's (2011) Asian American immigrant students' civic engagement construct, I designed a qualitative study that focuses on civic engagement and community leadership of Myanmar refugee students in the City of Clemens metropolitan area. Merriam (2009) discusses that a researcher should employ qualitative research method if the focus of the study is to understand meaning making process of participants, and to capture rich narratives. In order to capture subtle influences and aspirations, and to better understand how Myanmar refugee students make meaning out of their civic engagement experiences, I decided to employ exploratory ethnographic research.

Of course, I struggled with my own identity and positionality while conducting this research as I am not only a Myanmar (or Burmese) individual who was born and raised Myanmar (or Burma), but also an immigrant student who is active in civic engagement activities. In addition, I am very connected to the community, and I know most of participants in my study on very personal level. In fact, some participants have worked with me closely in several occasions, and I have acted as their mentor for more than a dozen times. As such, I may have several pre-conceived notions and feelings about my participants and their civic engagement work in the City of Clemens, and they may not have opened up to me entirely due to the nature of my relationship with them. Since I am their mentor and one of the leaders in Clemens Myanmar/Burmese community, they may have reserved themselves and their authentic voices (Weis and Fine, 2000). I, therefore, employed reflective inquiry—as suggested by Bogdan and Biklen (2014)—so that, my participants' voices are meaningfully presented to readers. While recognizing my own identity, potential biases, and positionality, I let my participants' voices guide me through data analysis.

Site and Sample Selection

The City of Clemens metropolitan area hosts about 8,000 refugees from Myanmar. No more than a hundred Myanmar refugees currently pursue post-secondary education in local colleges and universities, and a handful of them become active in civic engagement activities. Since my research purpose is to study civic engagement aspirations, influences and experiences of Myanmar refugee students, I conducted the purposeful sampling procedure. Through professional and personal relationships, I recruited 11 Myanmar refugee college students—four males and seven females. My participants come from Burman/Myanma (including Burman-Muslims), Chin, Zomi, Rakhaing, Mon and Karenni ethnic backgrounds—six of eight predominant refugee ethnic groups from Myanmar currently residing in Clemens. Although I tried to recruit from ethnic Karen refugee students, I had no luck as Karen students have stringent reservations on me due to my heavy involvement with non-Karen groups in Clemens. To avoid unwanted political and communal complications, I intentionally left out ethnic Rohingya (also referred as Bengali) refugees in this research; however, I intend to include this group in my future studies.

Data Collection Procedures

Two primary data collection methods—interviews and focus groups—are selected to maximize external validity and readers' generalizability of the study. Merriam (2009) suggests that interviewing is “the best technique to use” when conducting intensive qualitative studies of a few selected individuals, as it could provide rich data to researcher (p. 88). I conducted face-to-face interviews with each of the 11 participants, and then set up at two focus groups. In fact, focus groups were also used as member checks of one-on-one interviews. I allowed participants to choose a preferred place to conduct one-on-one interviews—eight interviews took place in local cafes or restaurants, two in my car, and one at participant's house. Focus groups were conducted at local cafes.

I primarily fielded unstructured interviews, both in one-on-one interviews and focus groups, that provide flexibility to both researcher and participants. With the permission from participants, I recorded all interviews with my Samsung Galaxy Note5. In addition to voice recording, I kept field notes to sketch in-depth person-to-person observation. All voice recordings were transcribed and translated (from Myanmar to English), and then back-translated (from English to Myanmar) in order to ensure accuracy and correct representation of participants' narratives. I, then, used HyperRESEARCH tool to code the data and to conduct thematic analysis.

Findings

Unified Identity as a Powerful Force

Civic engagement scholars imply that immigrant students' national origins, ethnic backgrounds, and cultural identities play a crucial role in their civic engagement activities (Chan, 2011; Jensen, 2008; Stepick et al, 2008; Levine, 2008). In my quest to explore various factors that influence Myanmar refugee students' civic engagement activities, identity formation (and reinforcement) emerges as a quintessential, powerful force. The refugee students in my study not only identify themselves as Myanmar, but show unique pride in that Myanmar identity. As I analyze the narratives of Myanmar students, I come to realize that their identity formation (and reinforcement) is deeply rooted in their experiences as Myanmar refugees, and is strongly reflective of the political history and circumstances of their native country. The narratives stunningly indicate that each Myanmar refugee student's civic engagement and leadership experiences have been significantly shaped by the historical disunity among various ethnic groups from Myanmar, and that the participant's identity and convictions have been transformed or reinforced by those experiences.

Swe Swe, a female sophomore student who is currently pursuing bachelor's degree in finance at the Small Private Catholic College, stresses her disappointment with community disunity. Albeit showing genuine sympathy and understanding, she narrates:

I am very disappointed by elders. There are so many leaders from different ethnic groups, organizations, and informal groups, but they are doing disservice to the community because of the division among them... Although we are different in terms of ethnicity and religion, we all come from Myanmar. Unless we are united and organized, we will not be able to show that Myanmar refugees can also achieve great things in Clemens.

Swe Swe's narration, in fact, highlights the importance of "Myanmar unity" and the embrace of Myanmar identity in her civic engagement aspirations. Her desire to become that unifying force—and her pride in being a Myanmar refugee student—encourages her to actively participate in a wide variety of civic engagement activities, not just within Myanmar community, but also in mainstream American community.

N'gun Sah, a Local Community College freshman and IT manager-aspirant, laments that he has never seen such division in the community since he was born in sleepy mountain town in northern Burma. His childhood was stable and peaceful, but his family relocated to Malaysia when unrest broke out in the region during his teenage years. As a son of farmers with very limited access to meaningful post-secondary education in Myanmar, he helped his brothers doing odd jobs in Kuala Lumpur. There he encountered a harsh reality of discrimination and indifference not just from Malaysians but also from fellow Myanmar living in Malaysia. He also saw horrendous division among Myanmar groups, and witnessed bitter fallouts and infightings within Myanmar migrant and refugee community. After spending a few years in Malaysia, he resettled in the United States with his family. N'gun expresses:

The division was so deep and so bad in Malaysia, but I never expected to see similar thing in America... Like in Kuala Lumpur, we have so many leaders and groups in Clemens, and nothing really gets done. But we will change it. Divisions and infightings are usually among elders, not really among us. We must show that we can work together even if we come from different [ethnic] backgrounds. We must not pass down divisions and disunity to future generations and new leaders.

Zaliang Hmung, a design expert and a devout soccer player, attends Small Christen Private College while not working at a Thai restaurant or busy making banners for Myanmar Youth Group. Like other participants in this study, he too expresses his dissatisfaction with division within the community. However, he believes that instead of blaming elders and "others", it is important to know that division, disunity, and mutual distrust are products of decades-long tyranny and oppression. While stressing the fact that oppression from Myanmar military is the root cause, he also embraces forgiveness and hope for his fellow Myanmar in Clemens. He reflects:

The most unpleasant thing I have experienced in the U. S. is discrimination—but not from Americans, but from our own people. For instance, when I was at International High I was usually mocked by Myanmar peers for my poor English skills. They also distanced themselves from me, because I am Chin and most of them are Karens. Of course I do not blame them, as it is not their fault. Children learn from their parents, and parents get all sorts of discriminative attitudes from dictators. But Jesus told us to forgive and to lead even enemies to a better place.

Through disappointments and frustrations of community disunity, unchangeable egos of community elders, and serious mistrust among ethnic groups, Myanmar students see the need for unity, collaboration, mutual respect and forgiveness. Their civic engagement aspirations and leadership activities are significantly shaped by their collective Myanmar identity and the sense of unity that they acquired through their lived experiences while they were in Myanmar and after resettled in the United States. Not unlike Miami Latino students (Stepick, Stepick and Labissiere, 2008), Myanmar refugee students found a rallying point at reinforced national identity, and the need of unity within Myanmar community and among different refugee ethnic groups from Myanmar. Indeed, their unified identity as Myanmar student leaders and community unifiers is the major influence that empowers them to actively participate in civic engagement activities in the City of Clemens.

Community Attachment and Social Ties

For many immigrant youth, a sense of community and attachment to that community (be it an abstract or a physical, geographical one) can be a cornerstone of civic engagement activities (Hosang, 2006). For Myanmar refugee students, the community is more than just a simple gathering of people at particular geographical location. Myanmar refugee students are deeply attached to their community, because intricate relationships among Myanmar people living in the City of Clemens, community issues that affect their daily lives, social connections and friendships with other students, and civic duties exist. In fact, Myanmar students are at the center of Myanmar community fabric of Clemens—as they are considered “a bright future” of the community—and their attachment to the community strongly influences their civic engagement activities (Lenzi et al, 2013).

Kyaw Tun, a freshman college student and a medical doctor hopeful, discusses that he would not have participated in any civic engagement activities, have he not been in Clemens. He draws his energy to participate in such activities from his closeness to various community members and established relationships with Myanmar student peers. Kyaw narrates:

If I am not in Clemens, I might not do these things. I might just go to school, hang out with American friends, and that's it. There is no need for me to engage in civic activities, if there is no Myanmar community. My main reason [to participate in civic engagement] is to help improve my community in Clemens. Look, there is no Myanmar medical doctor here. When [robbers] broke into Myanmar people houses, none of us really knew what to do. Also, I am seeing more and more of Myanmar kids struggling at Clemens public schools. At the school where I am assigned as tutor, I meet with boys and girls who could barely read or do simple math. It is such a shame. And I feel like I need to help them out. Because, you know, I just can't be someone who goes to college or get a good job for myself.

Kyaw Tun's feelings and sense of connection to the community channel him to participate in civic engagement, and even to become a strong, committed young leader in the community.

Aye Mya Kyi, a female recent graduate from an associate degree program at Local Community College, shares the similar sentiment with Kyaw Tun. Aye Mya Kyi comes from devout Muslim family, and she was initially discouraged by her father to get involved with Myanmar community in Clemens. However, she found relief and encouragement during her high school years in Clemens, although she had never gone through any formal education before resettling in the United States from a refugee camp in Thailand. She overcame language barriers and academic struggles with help from both teachers and close friends. Since then, she saw the value of friends, mentorship and unity. Not unlike Kyaw Tun, Aye Mya Kyi also feels the strong connection with other Myanmar students and the community at large through pressing issues. She expresses:

I am the oldest daughter in my family and I am supposed to take care of housework and chores... Also, in my religion, a girl is not supposed to go out and do things that are not related to housework and family. When I turned 18, I decided I must go out and get better life, regardless of my father's objection. But I realized that I need education. With education, I can grow beyond housework and chores. Now, I have an associate degree and I have started working at public schools. There, I meet with many Myanmar students who are like me 6 years ago, and I really want to help them. But I can only do so much on my own. I believe our community needs more unity, strength and capacity to provide effective and efficient support to these children.

From the narratives of Kyaw Tun and Aye Mya Kyi, it is clear that community attachments and social ties influence their participation in civic engagement activities, and especially aspire them to become young leaders who are determined to empower up-and-coming youth, to initiate positive change within the community, and to provide services and supports to other community members who are in need of help.

Nurturing Grounds

It is imperative that Myanmar refugee students' civic engagement activities are influenced by their unified identity and unique connectedness to the community, however, their ability to effectively engage in civic activities and participate in community leadership is largely shaped their acquired experiences at various institutions. Academic institutions, such as colleges, universities, or even high schools, can be nurturing grounds for youth in honing their civic engagement and leadership skills (Soria et al, 2015; Barnhardt, et al, 2015). Likewise, social clubs, religious organizations, and community events unveil opportunities for young students to practice their civic engagement and leadership skills (Stepick et al, 2008; Levine, 2008; Chan, 2011).

The focus group sessions give me a glimpse of how Myanmar refugee students are influenced by various institutions. One of the participants, for instance, was empowered by her experiences as a President of Asian American Club at her school. It gives her a chance to become leader and civically engaged outside of school. In addition, she learns important skills, such as event organizing, fundraising and program coordination, from Asian American Club. Another participant, although not exposed to formative activities at school, enjoys working with professionals at schools

and hospitals, and learns important communication skills as certified interpreter for Karenni refugees.

The narratives of my participants reflect that not just academic institutions and religious organizations empower Myanmar refugee students to be active in civic engagement; formal meetings, informal social gatherings and exposure to public officials and elected leaders also enhance their aspirations and commitments. Collaborations with peers and leaders from mainstream community give students a chance to stay connected with their peers, forge close relationships, and distribute exposure and privilege they have acquired to other youth who are yet to become active in civic engagements. This, in turn, creates a unique opportunity for Myanmar refugee students to reassure themselves as new, progressive young leaders and activists in the community, and enable them to further pursue civic engagement activities in the mainstream community (Chan, 2011; Levine, 2008).

Implications

It is claimed that immigrant students who are active in civic engagement activities are, in fact, assets to the American society (Levine, 2008). Although these students face initial social, cultural, and language barriers, they leverage their bicultural resources to succeed and excel in the civic engagement work. In my exploratory ethnographic study, I found that Myanmar refugee students have not only succeeded in negotiating acculturation gaps with their families, but also achieved empowering experiences by engaging in civic engagement activities. Fueled by the abhorrence of disunity within Myanmar refugee community in Clemens, they forged the unique identity as progressive Myanmar youth. This forged identity, indeed, provides a stage for the Myanmar refugee students to actively engage in civics that are pertinent to refugee issues. Likewise, students' close ties with their own community deem particularly crucial in reinforcing their aspirations to participate in civic engagements.

However, I must note other underlying factors that may have underpinned Myanmar refugee students' civic engagement aspirations and experiences. Scholars, such as Aihwa Ong (2003) and Stacey Lee (2005, 2009), posit that the lived experiences—as well as socioeconomic backgrounds and social origins—of South East Asian immigrants and refugees are neither simple nor uniform; in fact, they argue that certain groups are more advantaged than others due to their privileged social and ethnic origins. As such, the social and cultural capitals they carry can be significantly varied (Lucas, 2001). I observed that majority of the participants of this study come from more or less privileged socioeconomic backgrounds, and are therefore better poised to engage in civic engagement activities more effectively than other students in their community.

In addition, I detected that Myanmar refugee students in my study may have subtly applied “othering”, and by doing so their positions as progressive student leaders in the community may have been more strengthened. Kyaw Tun's narratives, in particular, highlight how he considers himself as a different person than other “Myanmar kids [who are] struggling at Clemens public schools” or “[Myanmar] boys and girls who could barely read or do simple math”. It is the quest of a good kid to save other kids who are in limbo, and the good kid must strive to protect his community and make the society a better place through civic engagement. There is

no doubt that Myanmar refugee students who are active in civic engagement in the City of Clemens metropolitan area are doing great things for the community, and are brilliant leaders who have tremendous potentials in life. However, I must pay more attention to the intricate role of social class within the refugee students civic engagement context in future studies.

Limitations and Conclusion

This study, needless to say, is neither extensive nor exhaustive – it is an exploratory ethnographic work that tries to understand aspirations, experiences and influences of a handful of Myanmar refugee students who are active in civic engagement activities. Likewise, this may not be the best representation of civic engagement of refugee students who come from Myanmar; I could not recruit Karen or Rohingya/Bengali students to participate in my study. Therefore, in future, I project to integrate abovementioned student groups in the study. As I discussed earlier, I also intend to apply more “capitals” and “othering” lens in understanding civic engagement of Myanmar refugee students. I must stress that the civic engagement of Myanmar refugee students is not a simple matter as it interweaves several critical issues—such as, ethnic conflict—but it deserves more attention, as it may help scholars find better ways to empower disenfranchised youth in the United States.

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Entrepreneurship Education Questions and Good Practices in Hungary and Central and Eastern European Countries

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Abstract

Entrepreneurship is a key driver of economy as the majority of jobs and produced goods are created by small and medium enterprises all over the world. This process highlights the need and importance of entrepreneurship education. Different issues could motivate being an entrepreneur: freedom, higher self-esteem and a greater sense of control over own lives, and it may have different roots in personal character, family background or even in business opportunities. Education of future entrepreneurs should cover different fields, financial knowledge, managerial studies, planning methods, behavior patterns and special entrepreneurial skills.

Our research focuses on the need for reconstructing entrepreneurship education at higher education institutions, based on the findings of an international research on the economic awareness and entrepreneurial attitudes of university students in Hungary and other CEE countries.

Research results indicated that entrepreneurial attitudes of Hungarian students are very strong: not only in business-type courses, but also at courses of agricultural, engineering, human resource and pedagogical studies. On the other hand, our findings called attention for the different economic knowledge level of students with various specialization, which should be considered during the development of teaching materials and curricula.

In the course of entrepreneurship education, the main task of educators is to strengthen the economic knowledge of students by learning-by-doing and practice-oriented methods as well as by introducing good practices together with representatives of the entrepreneurial sphere. Our paper summarizes the main findings of our research and their applications in the remodeling of entrepreneurship education methods.

Keywords: entrepreneurship, higher education, economic awareness, entrepreneurial attitude, Hungary, CEE countries, entrepreneurial ecosystem

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Introduction

Nowadays, the importance of entrepreneurship education is increasing and it should be considered as a key topic of contemporary educational issues all over the world, but it has an increased importance in Central and Eastern European countries. As entrepreneurship and the formation of new enterprises are among the a main accelerators of national economies all over the world, it is very important to explore those tasks which educators of different educational institutions shall fulfill in order to prepare the young generation for this possible path of their future.

The general issues of economic awareness of the young generation, the entrepreneurial attitudes of the students of higher educational institutions are discussed through different international and Hungarian researches, for example researches by Otter (1991), Sieger et al. (2011), Veciana, J.M., Aponte, M. and Urbano, D. (2005), Szerb and Márkus (2007), Farkas and S. Gubik (2013), Dunay et al. (2015); Szerb and Trumbull (2015).

The need for entrepreneurship education was described by numerous authors, research results and good practices. Based on literature sources and previously conducted own researches three main pillars of entrepreneurship education can be differentiated in higher education: (1) educators (professors and lecturers), (2) students and (3) the representatives of the business sphere (entrepreneurs, owners and managers of existing enterprises who, in many cases, are representing the given school's alumni members). The success of entrepreneurship education is determined by the synergic collaboration of these players and groups.

Of course, the level and the depth of education may vary in different educational programs and specializations, the requirements and engagement of students at different course types (business and non-business types) shall be considered. Based on the wide range of literature sources one can find that there is a strong need for obtaining a basic knowledge of business studies (Csapó, 2010; Vecsenyi, 2011; Acs, Autio and Szerb, 2014; Daróczi és Illés 2014; Imreh-Tóth, 2014; Fetter et al., 2010; Gibcus et al. 2012), and most of the researchers agree that business should be learnt through practical issues and learning-by-doing methods.

The aim of this paper is to describe the entrepreneurial ecosystem, where entrepreneurship education might be implemented successfully and to describe the need for entrepreneurship education in the CEE countries based on the results of an international survey. Finally, the authors wish to summarize the good practices which are in use at different study programs of the Faculty of Economics and Social Sciences of the Szent István University, Gödöllő, Hungary.

Entrepreneurial ecosystem

Different authors agree (Csapó, 2010; Nathusius, 2013; Ferrets at al. 2010, Thorp and Goldstein, 2010, Shattock, 2005, Barnett, 2005, Galloway and Brown, 2002) that entrepreneurship education should be based on well-built connections between entrepreneurs and professors or lecturers of the universities. These connections may derive from the scientific and professional network of the university staff, the alumni system and of course from other relations and acquaintances from the business sphere.

The main players of the entrepreneurial ecosystem (Figure 1.) can be distinguished as external players (green boxes) and internal players (white boxes). External players – such as players of the product and services markets and financial markets, state organizations and NGOs, existing companies – may contribute to create the financial background, technical support and may provide external tuition activities for the internal players. Internal players are the students, professors and those entrepreneurs, who take part in education. Professors and entrepreneurs – in close cooperation – will transform (i.e. teach and guide) the students to be nascent entrepreneurs, who may access into the entrepreneurial sphere in the future as young companies, which will be able to work as an accelerator of the national economies.

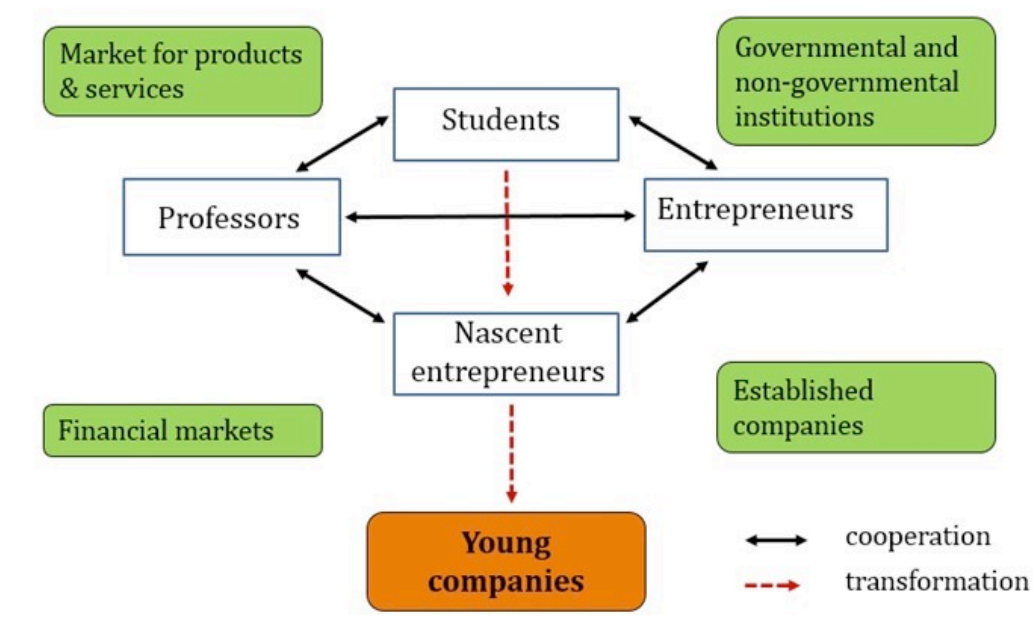


Figure 1: Players of the entrepreneurial ecosystem
Source: own construction based on Nathusius (2013)

Analyzing this structure, several questions may arise. What are the main values and preferences of the generation of university students? What are their preferences and ideas about their future work? Are students interested in entrepreneurship? Do they have entrepreneurial attitudes? Do they need any special knowledge? To find the answers for these questions, an international survey was conducted in four Central and Eastern European countries: Czech Republic, Hungary, Poland and Slovakia. The main findings of this research contributed to find new perspectives for educators to develop and implement new methods in education.

What is the role of educators in this system? This is a very complex question. Firstly, educators (university professors and lecturers) shall provide a strong theoretical knowledge for the students, which could give a good base for the further practice-oriented education. These theoretical bases should be taught in the first semesters. Later on, the focus should be moved towards a practical approach, where lecturers shall prefer learning-by-doing methods. These methods will need a mixture of individual and team-work, by which the students may be prepared for the real life,

where they shall make individual decisions and also they shall work in teams. Finally, entrepreneurship education should be built on examples from the real life, i.e. educators and institutions should invite the representatives of the business sphere for collaboration, which needs extra efforts from both parties.

Research background, material and methods

Entrepreneurs and enterprises are main pillars of national economies. The existence of enterprises has undergone through fundamental changes in the previous decades, particularly in the Central and Eastern European countries. In the former socialist countries, there is still something like the “heritage” of past, when companies have lost the traditional business partners and trade market positions due to the political and economic changes. This heritage strongly determines the entrepreneurial attitudes and motivations in most CEE countries (Illés, Dunay and Jelonek, 2015; Illés et al, 2011; Zozulak and Zozulakova, 2015). Small businesses have to face the problem of the relatively small internal market and the difficulties of entering into the international market, moreover, the preferences of middle aged employees are traditionally represented by the dominance of state-owned or large companies or by the public sphere, the entrepreneurial attitudes are relatively less popular (Swadzba and Cekiara, 2015).

According to the classical theories of entrepreneurship by Schumpeter (1980), the three main motivations of entrepreneurs are the desire for creating their own life, the desire to gain in competition and the creativity for achieving something new. Freedom, the higher self-esteem, a greater sense of control over own lives are also among the main motivations of being entrepreneur (Drucker, 1992). In addition to motivations and attitudes special knowledge and skills (e.g. financial knowledge, literacy and skills in managerial studies, planning methods, behavior patterns and special entrepreneurial skills) are also inevitable.

To explore the current situation of entrepreneurship education and the need for such knowledge, an international survey was conducted by an international group of experts representing CEE countries. The project was finalized by the collaboration of four partner universities: the University of Silesia, Katowice, Poland, the Palacky University in Olomouc, Czech Republic, the Constantine the Philosopher University in Nitra, Slovakia and the Szent István Egyetem, Gödöllő, Hungary. The economic awareness and entrepreneurial knowledge and attitudes of the university students were surveyed by questionnaire method with mostly closed questions. The same questionnaire was used in all the four countries, which allowed the full international comparison. The research topics focused on the following topics: the economic awareness of the young generation, the general system of values of the university students and the entrepreneurial attitudes of this generation.

The sample of the survey covered nearly 1600 students of the four countries, all research groups surveyed almost 400-400 respondents from the different faculties of their universities (Faculties of Agriculture, Arts, Economics, Engineering, Social Sciences, Pedagogy and Technology), i.e. students of business and non-business type courses were examined.

Entrepreneurial attitudes of the young generation in CEE countries

As a first step, the general system of values of the students was explored. Different authors discussed the role and influence of the general values of the young generation (Inglehart, 1997; Inglehart, Basanez and Moreno, 1998; Hartley, 1991; Bendit, 2006; Pompa, 2016). They agreed that the values of the young generation are strongly determined by their families, the society and the culture in which they have been raised, and were/are also characterized by the challenges of our days, like the political transitions, globalization, and the development process that is simultaneously bringing people closer together and widening the division between them. Meanwhile, young people today (especially in the CEE countries) shall face a very uncertain future as a result the economic crisis and the recession, government spending cuts and structural problems such as high cost of housing, low incomes and especially lack of job opportunities (Dolphin, 2012).

In the survey, university students were asked to evaluate the importance of work, family, money, education, religion, health, friends & acquaintances in their lives. Students could mark their answer on a five-grade Likert scale. Based on the research results, the hierarchy of the important values was the same in all countries (of course, the frequencies of the answers varied). All students without exceptions, consider family and health and work as the most important values, the next important values were friends. Education and money were at the 5th and 6th places in the rank, while religion (7th) was regarded as least important in all countries. Based on the answers it was observed that students realized the economic problems of our times, but they are quite self-confident, open-minded and are unafraid of taking risks, they know they are responsible for their future life.

The opinion of the students about entrepreneurial life was different in different countries. For example more than 53% of Hungarian students would prefer to run an own company and only 9% would work in state-owned workplace, while in Slovakia 16% of the respondents would prefer working in the public sphere and less than 40% would run own company. In each countries, nearly 20% of the students indicated that they would work abroad, so this is a warning sign for the policymakers: losing such high proportion of the young people would bring unpredictable consequences in the future. These findings are confirmed by the observations of other authors (Vinogradov, Fekete-Farkas and Tóth-Naár, 2015; Krawczyk, 2014; Joensen, 2009).

Entrepreneurial attitudes of Hungarian students

The survey was conducted at the Szent István University, one of Hungary's largest institutions of higher education. The education programs cover all three levels of the Bologna system: the university provides a wide range of bachelor and master courses and it has eight doctoral schools. Most of the courses have both full time and part time educational programs and some bachelor, master and PhD level programs are taught in English, for foreign students.

The questionnaire survey was conducted at the Gödöllő and Budapest Campuses, among full time and part time students at bachelor and master courses with a wide variety of courses and specializations. Faculty of Agricultural and Environmental Sciences provides courses in agricultural engineering, wildlife conservation,

biotechnology, crop science, animal science, animal nutrition and feed science. Faculty of Mechanical Engineering has courses on mechanical engineering, mechatronics, agricultural and food processing engineering food, facility manager and technical manager studies. The Faculty of Economics and Social Sciences runs different business-type courses: management and business administration, marketing, finance, logistics, tourism, management and leadership, international economics, and different non-business type courses: for example agricultural economics, rural development, human resource management, andragogy courses.

Business-type courses (economics/management) are the most popular and have the greatest share of students. The sample of students represents a large area of Hungary because the university is a well-known state owned university, with long traditions and good reputation. The sample is shown in Table 1.

Table 1: Demographic features and educational information on students in the sample

Features		Respondents (%)
Gender	Female	59,0
	Male	41,0
Level of education	Bachelor	84,5
	Master	15,5
Mode of study	Daily (full time students)	83,3
	Week-end (part time students)	16,7
Field of study	Agricultural and engineering**	29,3
	Economics/Management*	47,1
	Social**	23,6
Settlement type	Village	23,6
	Town to 20 thousand	18,2
	Town 20-100 thousand	20,7
	City 101 thousand and more-	37,5

Note: *Business type courses: 47%, **Non-business type courses in total: 53%

Source: own research

The assessment of the students' opinion on the current conditions for enterprise development in Hungary was one of the initial questions, and later we analyzed the entrepreneurial experiences, the entrepreneurial attitudes and the entrepreneurial skills of the respondents were analyzed. Most of the students have a negative opinion about the current situation of enterprises in Hungary, and only one-fourth of the respondents think that the economic environment for enterprises is good, according to the vast majority (66%) the current economic situation in Hungary is unfavorable or bad. Analyzing the family experiences in entrepreneurship, it turned out that 56% of the students have someone running their own business in their close family (grandparents, father, mother, brother, sister), while 44% have no own-business experiences within the family.

One of the questions of the questionnaire was related to the plans of the respondents about their opinion and experiences on entrepreneurship (where only one answer could be selected from the 8 options). Based on the answers the respondents were divided into three groups: with positive, negative and neutral attitudes. The results are shown in Table 2. It can be seen that a relatively high share of the respondents

showed interest in running own business, and only 18,9% rejected the idea of owning a business in the future.

Table 2: Opinion about having own business

Statement	%	Attitude
I already own (co-own) a private company	3,5	positive
I want to soon start my own company	7,3	
I'm thinking of starting my own business in the future	27,2	
I have thought about it, but have not decided	41,0	neutral
I have never given it much thought	5,4	negative
I do not take this into account in my plans for life	13,0	
I had my own company and do not intend to assume the next	0,5	
Other answers	1,9	
<i>Total</i>	<i>100,0</i>	

Source: own calculations

Another question was related to possessing the abilities necessary for self-employment, i.e. being an entrepreneur, based on one's own knowledge, skills, experiences, motivations. Almost 15% of the respondents missed this answer or selected a neutral answer ("Hard to say"). From those who could give a definite answer, 80% was positive, while 20% negative. This means that the majority of the responding students think that they have the qualities allowing them to be entrepreneurs in the future. Of course, the answers that were ambivalent might have been so because of the young age or lack of knowledge, skills, experiences etc. of the students in the sample. This result shall remind the educators to be more conscious about teaching and training and trying to build well-based knowledge for the students

In connection with entrepreneurship and being self-employed, our results verify the general entrepreneurial spirit and activity of the Hungarian students. We have formulated an interesting observation based on the results of cross table analyses, namely, the greatest share (62,8%) of those respondents who would like to run their own company live in villages. This result may be caused by shortage of jobs in the places they come from, but this correspondence is worthy of further analyses.

A significant difference could be detected between entrepreneurial attitudes and the family background (Chi-square test: $p < 0,001$, Cross tabulation). It has been proven by statistical methods, that 48% of those who came from families with entrepreneurial background have positive entrepreneurial attitudes, while only 26,9% of those who came from non-entrepreneurial background have positive attitude towards running a business (Table 3).

Table 3: Relations between the family's entrepreneurial background and entrepreneurial attitudes

		Entrepreneurial attitudes		
		Negative	Uncertain	Positive
Business in close family	No	31,2%	41,9%	26,9%
	Yes	10,0%	42,0%	48,0%
	Total	19,4%	41,9%	38,6%

Source: own calculations

The strong significance of the Chi-square test ($p < 0,01$) proves that the relation between entrepreneurial attitudes and own entrepreneurial skills could be verified by statistical methods. Students who think that they do have positive entrepreneurial attitudes and knowledge were more opened for starting an enterprise and being self-employed (50,4%), while 14,5% of those respondents, who consider that they do not have enough knowledge and abilities for being self-employed indicated positive entrepreneurial attitudes (Table 4). These observations highlight the need for improving entrepreneurial knowledge and skills through special courses on entrepreneurship education.

Table 4: Relations between own entrepreneurial knowledge & skills and entrepreneurial attitudes

		Entrepreneurial attitudes		
		Negative	Uncertain	Positive
Opinion about abilities predisposing for self-employment	No	48,4%	37,1%	14,5%
	Yes	8,1%	41,5%	50,4%
	Total	16,2%	40,6%	43,2%

Source: own calculations

Our research findings underlined that the role of educators is very important in entrepreneurship education, as many of the students – both at business type and non-business type courses will require a strong economic and management knowledge.

Practice-oriented education and entrepreneurial approach at Szent István University

The authors are not intended to provide a comprehensive summary about the general questions of entrepreneurship education and will not formulate rules or requirements of entrepreneurship education courses, but will show the experiences of the Faculty of Economics and Social Sciences, of the Szent István University as a summary of a good practice in use.

Lectures and seminars

At the Szent István University, there are not special entrepreneurship courses in the curricula, but the content of the professional subjects fully covers this field. In this paper the Management and Business Administration bachelor course is described, where the study program focuses on practice-oriented education, which means the

increased share of seminars. Not only basic subjects (microeconomics and macroeconomics, mathematics, statistics and financial subjects) but also professional subjects (e.g. business economics, management of SMEs, project management, business planning, change- and crisis management) are taught with high number of seminars.

In addition to the practical-type seminars, where the students must perform individual tasks and team-work projects, the lectures also have practical features by the involvement of entrepreneurs and the representatives of the business sphere as invited lecturers. As an average, 30% of the lectures are held by invited lecturers.

Involvement of entrepreneurs and the business sphere in the education process

As it was described in Figure 1, entrepreneurs are key players of the educational process in the entrepreneurial ecosystem. Entrepreneurs may support students in different ways, such as:

- knowledge and experience sharing (as invited lecturers or at company visits)
- donations and grants (for example at students scientific and learning contests)
- internship partners and supervisors
- thesis supervisors, reviewers
- membership in exam boards.

An important question is that how can universities invite entrepreneurs into education. In general, it could be done in an official and an unofficial way. Official way means the cooperation through different educational and internship agreements between the two parties, while unofficial way is connected to the network system and professional or business connections of the professors and other educator colleagues. Another opportunity is building on the alumni system, as it is common at universities in the USA or England, but at the present, this system is not so well-based in our university.

According to our experiences at the Management and Business Administration bachelor program, the bridge between professors and entrepreneurs are mostly built on the individual networks and professional contacts of educators. An important and special character of these relations is that entrepreneurs will do voluntary work, without any financial benefits.

Due to the wide range of educational programs, it is possible to use the experiences of former and present students, who are representing the entrepreneurial world: for example, executive MBA students are often asked for keeping lectures, or hosting company visits. This situation may improve in the close future because of the present technical development of the alumni database.

The World Economic Forum defined 8 main pillars of the entrepreneurial ecosystem, which components are displayed in Table 5. Based on this classification, educators should take part as mentors, trainers and promoters of entrepreneurship, and should support the personal development of the students in different ways.

Table 5: Entrepreneurial ecosystem pillars and their components

Pillar	Components
Accessible markets	Domestic market and foreign market: Large/medium/small companies as customers, governments as customer
Human capital/workforce	Management talent, technical talent, entrepreneurial company experience, outsourcing availability,
Funding & finance	Friends and family, angel investors, private equity, venture capital, access to debt
Government & regulatory framework	Ease of starting a business, tax incentives, business-friendly legislation/policies, access to basic infrastructure, access to telecommunications/broadband, access to transport
Support systems / mentors	Mentors/advisors, professional services, incubators/accelerators, networks of entrepreneurial peers
Education & training	Available workforce with pre-university education, available workforce with university education, entrepreneur-specific training
Major universities as catalysts	Promoting a culture of respect for entrepreneurship, playing a key role in idea-formation for new companies, playing a key role in providing graduates to new companies
Cultural support	Tolerance for risk and failure, preference for self-employment, success stories/role models, research culture, positive image of entrepreneurship, celebration of innovation

Source: World Economic Forum, 2013, pp. 6-7.

How can students benefit from the cooperation between entrepreneurs and educators? They get practical experiences and they may start to build their own network. Another important and interesting question is that how can students support entrepreneurs in this system. Students may participate at different business processes (for example in business planning, market researches) or they can offer their special up-to-date knowledge (for example their proficiency in social media tools).

Based on the findings of our researches, it shall be underlined that there is a strong entrepreneurial spirit among the university students of the Szent István University, and not only in business-type study courses, but also in non-business type courses (agriculture, engineering, social studies). Students are interested in entrepreneurial studies, and they would prefer a more practice-oriented education, with creative tasks and work, so the practice-oriented management subject should be added into their curricula.

Conclusions

The importance of entrepreneurship and its emerging role in national economies is a well-known phenomenon of our time. The entrepreneurial attitudes, motivations and ambitions of the young generation play a key role of the future economic circumstances of every nations, and it plays an increasingly important role in Central Eastern European countries. Although more than two decades passed after the political transition of the 1990s, many of these countries are still lagging behind the well-developed Western EU member states, and the entrepreneurial ecosystem is not stable enough.

Nevertheless, there is a strong entrepreneurial spirit among the young people, which was confirmed by the results of an international survey conducted in four CEE countries. The results showed that university students have the intentions to be self-employed; they are attracted by the opportunities and the creativeness of being an entrepreneur. Their attitudes and inspirations shall be supported by educational institutions by well-built courses, which provide appropriate knowledge and practical education for the students with different background.

As a summary, modern university education – besides using the academic and theoretical approach – should be built on professional network connections, where the triangle of students–professors–entrepreneurs shall represent a live collaboration from which all parties may obtain benefits. An important part of entrepreneurial education is the formation of a well-built entrepreneurial ecosystem (Figure 2.), where the connections between the players of the ecosystem are mutual.

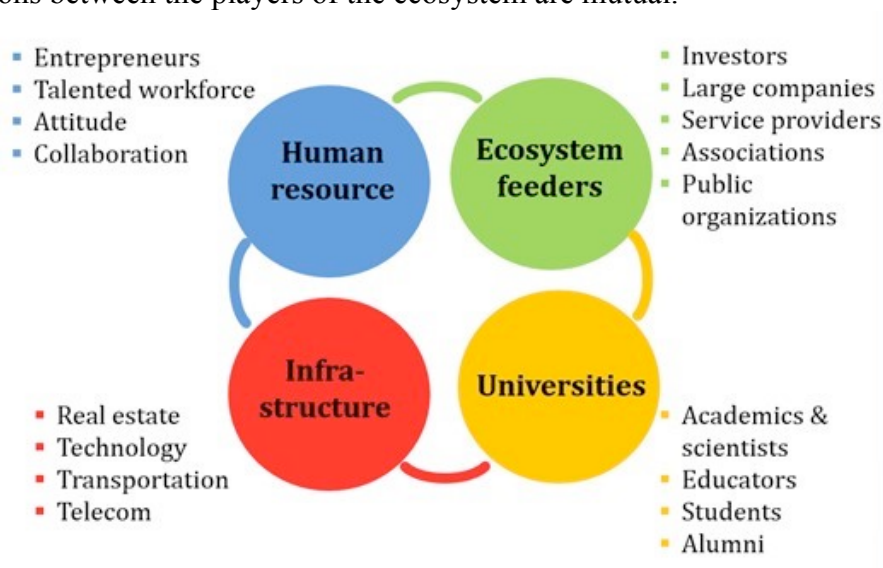


Figure 2: Entrepreneurial ecosystem
Source: own

In Hungary, it is not easy to invite ecosystem feeders into this circle, but based on the personal professional and business connections of the educators, supporters might be invited more successfully into this process. The appropriate infrastructure is also very important, because by using the latest technology and tools, students might be more attracted.

The most important task of educators is to organize the background for entrepreneurial studies, by inviting and introducing the representatives of the business sphere, and to provide a theoretically based, but practice-oriented education.

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Disability and Employment – An Overview on the Role of Education and Educators

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Abstract

People with disabilities shall face many socio-economic constraints in their everyday life, starting at kindergarten and primary schools, and ending by finding a decent job and being adjusted to corporate culture. The key to this problem might be education in an integrated way, which allows people with disabilities to use and strengthen their abilities. It works in theory, but pupils, students, families and educators will face several problems in the course of this process.

The authors, based on literature review and own research, aim to gain insights into the different conceptual models of disability and the policies to benefit disabled people in the European Union and Hungary.

The paper focuses on two approaches to address and identify disability: the medical model, which discusses disability within individuals, and the social model, which represents the social phenomenon related to disability.

People with disabilities are often victims of labelling, stereotyping, exclusion and discrimination that will determine their life and behavior. The education and employment regarding people with disabilities may raise several problems. How could higher educational levels be reached without equal opportunities? How to teach teachers and educators to be able to educate people with disabilities? How can people with disabilities be integrated at work? What jobs are appropriate for them? Our research and focuses on the present conditions and challenges at different levels of education of people with disabilities based on the experiences of a case study.

Keywords: disability, education, integrative approach, employment, training

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Introduction

According to the data of the World Health Organization (WHO) 650 million people – i.e. approximately 10 per cent of the world's population – live with disability, so they should be considered as the world's largest minority. The WHO highlighted that this number may increase through population growth, medical advances and the ageing process. Eighty per cent of persons with disabilities live in developing countries (United Nations, 2006; United Nations, 2015; Mitra, Posarac and Vick, 2011). Disability rates are higher in groups of lower educated people, according to OECD data, on average 19 per cent of less educated people have disabilities, compared to 11 per cent among the better educated (OECD, 2010; WHO, 2011)

In the European Union one in six people has a disability that ranges from mild to severe making around 80 million. These people are often prevented from taking part fully in society and the economy because of environmental and attitudinal barriers. The rate of poverty is much higher for people with disabilities because of their limited access to employment (European Commission, 2010a). The European Commission's European Disability Strategy 2010-2020 was adopted in 2010. Its objectives are focusing on eight priority areas (European Commission, 2010a):

1. Accessibility: making goods and services accessible to people with disabilities and promoting the market of assistive devices
2. Participation: ensuring that people with disabilities enjoy all benefits of EU citizenship and removing barriers in public life and leisure activities
3. Equality: fighting against discrimination based on disability and promoting equal opportunities.
4. Employment: raising the share of persons with disabilities working in the open labor market
5. Education and training: promoting inclusive education and lifelong learning for students and pupils with disabilities, providing equal access to quality education and lifelong learning
6. Social protection: promoting decent living conditions, combatting poverty and social exclusion
7. Health: promoting equal access to health services and related facilities
8. External actions: promoting the rights of people with disabilities in the EU enlargement and international development programs.

These priority areas are fully harmonized by the Europe 2020 Strategy, which set out three priorities for delivering growth: smart (more effective investments in education, research and innovation), sustainable (establishing a low-carbon economy) and inclusive. Inclusive growth has two main flagship initiatives: an agenda for new skills and job creation, and poverty reduction through the European platform against poverty (European Commission, 2010b).

The paper examines how these goals can be achieved and what is the most appropriate approach towards people with disabilities in order to live a full and active life.

Definitions and models of disability

The definition of disability by Merriam-Webster dictionary is *“a condition (such as an illness or an injury) that damages or limits a person's physical or mental abilities or the condition of being unable to do things in the normal way”*. According to

Oxford Dictionary, “*disability is a physical or mental condition that limits a person's movements, senses, or activities*”. The Cambridge Dictionary defines disability as “*an illness, injury, or condition that makes it difficult for someone to do the things that other people do*”. The situation is more nuanced if we explore the different legislative terminologies. Every country has a different approach to defining, identifying and treating disability. There are some common terms used all over the world such as, ‘handicapped people’, ‘people with disabilities’, ‘disabled people’, ‘physically or mentally challenged’, etc. In Hungarian legislation a special terminology is used, where in addition to the general terms of ‘disabled persons’, ‘persons with disabilities’, ‘people with intellectual disabilities’ the terms of ‘people with altered working capacity’ or ‘persons with changed working capacity’ is common. The usage depends on the ministry involved (Open Society Institute, 2005; NORSA).

Disabled people are often perceived in a negative way. Sullivan (2011) highlighted that people with disability are victims of stereotyping like weakness, dependency, incapacity and this negative attitude affects the professional life. Terminology of disability has undergone several changes, from the rude phrases that hurt or have psychological effects on people with disabilities towards the more polite and more nuanced forms. Some examples: ‘birth defect’ in the present terminology is ‘congenital disability’, ‘deaf’ is ‘hearing impaired’, ‘mentally retarded’ has more variations such as ‘development disabilities’, ‘intellectual disabilities’, ‘mental disorder’, ‘normal person’ is called ‘non-disabled person’ in the present terminology (Sharma and Dunay, 2016)

There has been a lot of discussion and awareness about disability in the past decades. The most frequently used conceptual models are ‘medical’ and ‘social’ models of disability.

Table 1: Models of disability

Medical model	Social model
<ul style="list-style-type: none"> • Problem of the person • Caused by disease, trauma, or other health condition • Management of the disability is aimed at a „cure” • focuses on the impairment and what can be done to ‘fix’ the disabled person or provide special services for them as an individual 	<ul style="list-style-type: none"> • „Disability” as a social problem • Not an attribute of an individual, but rather a complex collection of conditions • Management of the problem requires social action • Pro-active thought is needed for participating in activities as non-disabled people

Source: own summary

This framework helps to understand the concept of disability by which people are able to broaden their knowledge about disability and provide insights into the beliefs and attitudes which still exists in society regarding disability (Sullivan, 2011). The social model stated that these people are as disabled by the society not by their bodies (Shakespeare and Watson, 2002). The medical (or individual) model, describes how to improve, prevent and cure life of disabled people (Marks, 2007). According to the social model, a person does not ‘have’ a disability – disability is something a person experiences.

In the beginning the 1980s, the WHO published the initiative of International Classification of Impairments, Disabilities, and Handicaps (ICIDH). This model outlines a conceptual framework showing the relationship between the body, the individual's disability and the individual's position in the society in relation to long-term diseases, injuries and disorders (WHO, 1980). According to ICIDH, there are three main criterion for medical model which are impairment, disability and handicap, i.e. these are the consequences of disorder.

Impairment can be temporary or permanent situation and could be due to disease, birth complications, accident or genetic issues. Disability is a condition where individual is lacking to or unable to perform day to day activities (resulting from an impairment) which is considered "normal" to human beings. This may be temporary or permanent, reversible or irreversible, varying from case to case. Handicap is a social phenomenon representing the social, cultural and environmental consequences for the individual which arise from the impairments and disabilities which limits an individual to perform roles which are considered normal (Badley, 1993; Marks, 1997; Bickenbach et al., 1999; Llewellyn & Hogan, 2010).

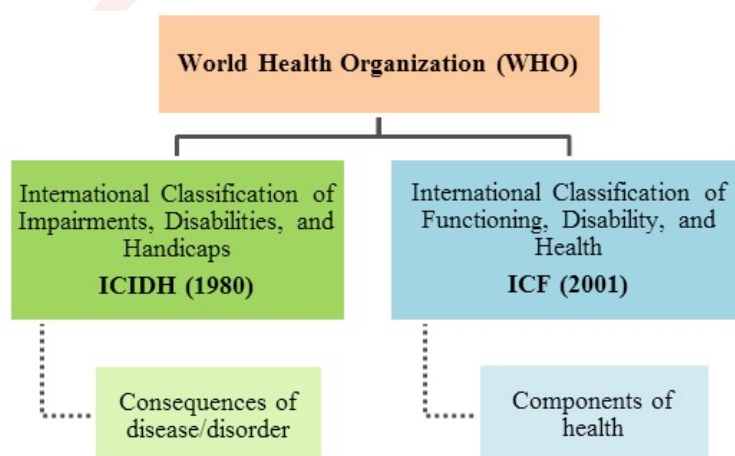


Figure 1: Overview of ICIDH and ICF
Source: own

In 1993, the World Health Organization (WHO) initiated the process of revising ICIDH to incorporate three main groups - mental health, children and the environment (Bickenbach et al., 1999). The new International Classification of Functioning, Disability, and Health (ICF or ICIDH-2) models provides a consolidated and structured system which consider the impacts on health. It gives a framework for classifying the health components of functioning and disability and provides a so called "biopsychosocial model" with different perspectives – biological, individual and social – of health in two parts: (1) functioning and disability and (2) contextual factors, i.e. environmental and personal factors (WHO, 2001).

In 2007, ICF was revised and ICF Children and Youth (ICF-CY) was formulated. This was done in response to the criticism that the original ICIDH had not placed sufficient emphasis on children and youth (Simeonsson et al., 2000). The ICF-CY is an expanded version of ICF which covers body functions and structures, activities and environmental standards in relation to infants, toddlers, children and adolescents (WHO, 2007).

The European Union puts emphasis on the economic, social and vocational integration of disabled people. The first action program on the social integration of handicapped people was established in the 1980s. The second European Community action program, was the so-called HELIOS 1 (1988-1991) was designed to contribute to the objective in accelerating the raising of the standard of living through the implementation of a number of specific actions to promote the social integration and independent way of life of people with disabilities. The third action program for disabled people was HELIOS II, between 1993-1996. This program was launched for strengthening the economic and social cohesion of the people of Europe and for pursuing and intensifying work on a comprehensive and consistent policy for the integration of people with disabilities. HELIOS II program covered a wide variety of fields such as prevention and early assistance, functional rehabilitation, integration into the educational system, training and vocational guidance, employment, new technologies, technical aids, independent living, access to cultural, sport, leisure and tourism activities, family life etc. (European Council, 1993). The implementation of these programs was started in the new member states, too, and resulted improvements at different levels in accessibility, technical aids and training opportunities as well.

Children and disability

According to the estimations between 180 and 220 million of young people live with disabilities worldwide and nearly 80% of them live in developing countries. Young people with disabilities shall face the problems in the fields of poverty, family situation, education, transition to working life and employment (United Nations, 2016).

Poverty – Poverty is a significant problem even in well-developed countries for households with members with disabilities. These families generally have lower incomes than others, as the parents or other family members (mostly women) have to give up employment to take care for the family members with disabilities (Mitra, Posarac and Vick, 2013).

Family Situation – In some families, having a child with a disability may bring them closer together. Nevertheless, this situation will bring severe challenges for the whole family. Families believe that their children need protection, and it can lead to lower self-esteem and a weaker sense of identity. This attitude prevents youth with disabilities from reaching their full potential. (Inclusion International, 2006).

Education – Youth with disabilities face many challenges in education even with a supportive and encouraging family background. These challenges may origin from inappropriate accommodation possibilities, the lack of appropriate facilities or assistance. Moreover, children with disabilities at school can be exposed to discouraging behavior, violence, threats, physical abuse and bullish attitude by other students, teachers and school staff. This is the most important and sensitive phase of disabled life which leaves psychological imprints left on child's mind forever (Sharma and Dunay, 2016)

Transition into working life and financial independence – The next difficult period for young people with disabilities is the transition from childhood into adulthood. The most important problem is achieving successful employment and independent living.

Young adults shall face new problems of discrimination at work and their new, independent life without the caring families.

Employment – Not receiving the skills and qualifications will limit the employment opportunities for youth with disabilities. Unemployment rates for persons with disabilities are higher than for persons without disabilities. The unemployment rate of persons with disabilities is over 80% in some countries across continents. Many of them are offered low paying jobs, or may be employed in the informal sector (Mitra, Posarac and Vick, 2013). Work place discrimination is also a serious challenge.

As a summary, it is clear that education may bridge the gap between family care and individual life. Education should provide enough practical knowledge which can be used in private life and work. Inclusive and accessible schools are essential conditions to promote the social inclusion, acceptance, equality and opportunities in schools and colleges for people with disabilities. Teachers and school personnel should be prepared for this special situation, as the lack of knowledge and information may lead to the exclusion of youth with disabilities from certain activities (World Health Organization and the World Bank, 2011).

A good practice from Hungary – education and employment of people with disabilities

The Hungarian case study describes a social cooperative which works in the catering industry. The data collection for the case study was done by performing semi-structured interviews, on-site observation and document analysis. Interviews with the employees and customer were carried out on the spot.

When analyzing the data of people with disabilities according to their economic activities it can be observed, that most of them are inactive earners (i.e. they get pension or maternity support), the share of dependent persons (who do not earn money and they are fully depending on the earnings of their families) is relatively high (Figure 2).

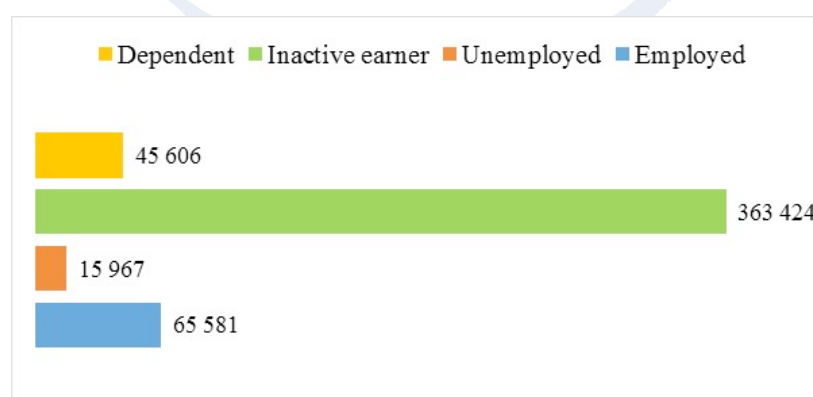


Figure 2: People with disabilities according to economic activities (Hungary, 2011)

Source: HCSO http://www.ksh.hu/nepszamlalas/tablak_fogyatekossag

The high number of inactive earners represents a huge danger for the national economy. These people are fully depending on their families they cannot live their lives independently, and thus, they cannot be assessed as equal as other people in the society.

A case study was worked out to explore a good practices for training activities and employment, through the experiences of a social cooperative. The examined company is a small restaurant-café, which has only 25 employees, 11 men and 14 women at different age groups. Five employees are not disabled, they have mostly leaders' position. The number of people with intellectual disabilities is higher than other types of disability. The employees of the company are displayed in Table 1.

Table 2: Diversity of employees at the examined company

Type of disability	Male	Female
Orthopedic disability	1	
Visual disabilities	1	1
Hearing and speech disabilities		1
Mental or development or intellectual disabilities	6	8
Others (single or multiple-disabilities)	2	
Non-disabled employees	1	4

Own research

The educational achievements of majority of employees are limited only to elementary and secondary schools. Many of the employees have certificates at vocational courses acquired through government-recognized bodies aiming to integrate into the labor market (Table 3.). These findings represent well the Hungarian statistical data, as according to the data of the Hungarian Central Statistical Office (HCSO) (the census was conducted in 2011), people with disabilities have mostly primary school education (50%), 17% finished at special vocational schools, 20% graduated at secondary schools, only 9% have university degree and 4% have no education at all.

Table 3: The educational achievements of employees (person)

Education	Disabled employees	Non- disabled employees
Primary school (regular and integrated schools)	8	--
Secondary school (regular and integrated schools)	12	5
Additional qualifications (vocational courses)	7	3
Higher education	--	--

Source: own research

There were many ways of recruitment at the company, the candidates are recommended by the employees and friends but also through other non-governmental organizations. Moreover, the Facebook page was also a popular platform and the most popular source of recruitment which is highly browsed for job vacancies.

During the interviews, many employees mentioned that they have graduated at vocational training schools, and they have special skills. The typical courses/professions they have are pottery, plant growing, carpet weaving, brush-making... that means they had relatively simple jobs previously.

When attending this company, the non-disabled staff and special experts trained them to be able to work in the catering sector, which is not a typical one for people with disabilities.

Based on the interviews, the managers revealed that although they have still some problems, the employees enjoy their work and represent a high quality labor force. The education and training period is longer when compared to non-disabled employees, but the job is well-done by everyone.

The managers also mentioned that employees are satisfied by their work and they can feel better the fruits of their work as they can observe their success from the positive feedbacks of the guests.

Conclusion

The case study shown above is just the first step of our present and future research topic for exploring the employment problems of people with disabilities.

Focusing on the Disability Strategy of the EU, we could state that this project helps equality and promotes equal opportunities. Employment, education and training is also present in the project, and the experiences show, that inclusive education, practice-oriented learning may open new perspectives for people with disabilities. Work in the open market (i.e. work in “normal” jobs like non-disabled people) will bring the decent living conditions for them, which may improve their well-being, and consequently, their health status may develop.

Of course, the study has many limitations at the present, but may be considered as a good practice for other companies and future projects.

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A Study of Effects on Cognitive Load and Learning Achievement with Different Spatial Ability Using Synchronized Multi-Display

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Abstract

In recent years, Augmented Reality (AR) has been widely applied in the educational field. Nevertheless, Sweller, Merriënboer, and Paas (1998) raised the Cognitive Load Theory, which concentrated on the development of instructional methods: the presentation mode of different teaching materials may affect learner's cognitive load; therefore, the cognitive load resulted from the change of teaching materials and methods was worthy of attention. This research is based on the teaching materials of phases of the moon and tidal, with the reference of features of teaching content and the AR, and also view each learner's spatial ability as one of the factors for consideration.

An AR model was used in the research, which can illustrate synchronously the relationship between the moon's rotation and the tidal effect. This research focuses on determining whether the presentation mode would affect learner's learning effectiveness and cognitive load, through the comparison between groups of learners using the single-image and multi-image method. In the end, the result shows that the presentation mode has no significant effect on the learner's cognitive load, but it does lay a significant effect on the learning effectiveness.

Keywords: augmented reality, Synchronized multi-display, cognitive load, phases of moon, e-learning

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Introduction

Teaching materials have transformed from papers and whiteboards into various multimedia formats which are often presented on projection screens (Cheng, Lu and Yang, 2015). The development of technology makes learning more efficient and allows Augmented Reality(AR) to be applied in teaching, and moreover AR has been proved effective in increasing both the learning and teaching effectiveness. Billingham (2002) indicated that the ARs were proved beneficial in the educational field: For instance, students can gain knowledge through fine interacting learning and at the same time develop new learning strategies. In addition, students are immersed in the dynamic learning contents.

Although research has revealed that applications of augmented reality are considered useful in the education field, more investigations on the effects of interactive media learning to cognitive load are necessary. Miller (1956) believed that the human beings' cognitive resources in processing messages was limited. Soloway, Gudial and Hay (1994) came up with a "Learner-Centered" interface design research; They suggested that an interactive learning system should allow learners to experience better interactions as the system put no burden on learners. By probing learners' cognitive load in machinery systems, we can determine whether the new learning system would put extra burden on learners.

According to the Cognitive Load Theory, different modes of message presentation would affect the learner's cognitive load and information processing. Sweller, et al. (1994) suggested that the pattern of teaching materials would affect the cognitive load of learners; They listed seven principles that could affect the cognitive load, and pointed out the effect on learners of different modes of presentation. Kirschner(2002) listed three media effects that may affect cognitive load, which are the attention effect, the repetition effect and the form effect. How these media effects affect the cognitive load is worthy of more in-depth explorations. This research also inquires the effect of math study on learners.

Purpose of the study

Most instructional ARs developed so far can only dub a single interactive AR image onto a single object. In this research, we used a synchronized multi-display AR system; its difference lays can combine two or more conceptions in order to teach through an interrelated manner. These images coordinately and interactively show the features of interaction between virtual reality and concrete reality. The correlations among the revolution and the phase of the moon and tidal effect on earth are multiple correlated concepts, and therefore were selected as the instructional content in this research. Moreover, this research also probed the different outcome between the teaching methods using single-image and multi-image displays, and each learner's spatial ability that may affect cognitive load was also examined.

During the experiment, learners were randomly divided into three groups, and each group used traditional teaching tools, single-image AR, or multi-image AR respectively as their instructional media. Learners' learning outcomes and cognitive load were evaluated by pre- test and post-test gains, which are designed by the researchers, and cognitive load scale, modified from Cheng, et al. (2015).

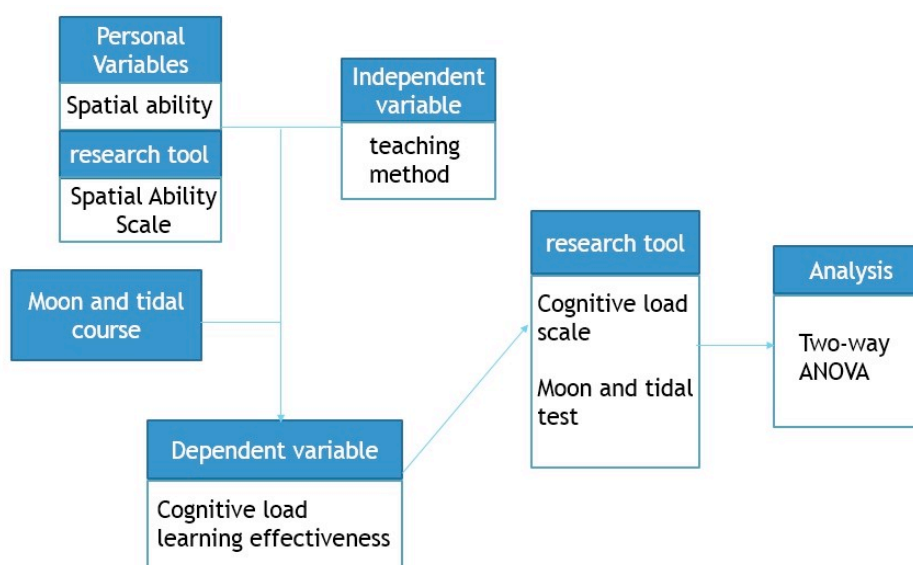


Figure 1. Research framework

Research tools

A. Spatial ability scale

The teaching content of this research are the phases of the Moon and Tidal. The waxing and waning of the moon are related with the relative location of the sun and the moon. Learners shall transform their thoughts between the metric moon changes and the three-dimensional moving model of sun and moon.

Hays (1996) believed that learners with lower spatial ability are in lack of the ability to construct effective comprehension and concept, so they tend to establish their mental models through visualization; therefore, in this research we took the spatial ability as one of factors. In addition, the “spatial ability mode pattern” proposed by Pellegrino and Kail (1982) was used as the guideline of spatial ability scale in this research; It divided the scale into two themes: rotation and vision, in the purpose of making the spatial ability scale more suitable for fifth graders.

B. Cognitive load scale

A measuring method is necessary to deter whether teaching materials would increase learners’ cognitive load; however, there is no standard measuring method of cognitive load. Paas and Van Merriënboer (1994) divided cognitive load into two dimensions: the task-based dimension (mental load) and the learner-based dimension (mental effort), which can both improve learning effectiveness.

The task-based dimension is that the learners can reflect on the difficulty level of textbook content after carrying out the task, and the learner-based dimension is that learners can reflect on the cognitive ability or resource after carrying out the task. Therefore, the dimensionality of distinguishing cognitive load by Paas was referred as the reference, and he also adopted Likert’s four points scale to measure the cognitive load, so that learners can self-evaluate their cognitive load in the learning process.

The scale was then subdivided into Mental load, Performance, Frustration Tolerance, Information absorption, Temporal Load, and Effort.

C. Phase of Moon and Tidal test paper

The experimental subjects of this research are fifth graders in Taiwan. Coordinated with the teaching schedule of “nature and science” fields, two test papers were given by the exports in the phase of pre-test and post-test. The number of questions and the testing concept were all the same in these two test papers.

The synchronized multi-display Augmented Reality system

The synchronized multi-display Augmented Reality system used in our experiment consists of three components: an earth/moon relation turntable, a computer with screen, and a webcam that captures a bird-eye-view of the turntable. This system is able to display a map of earth-moon relation, synchronizing with an animated version of phases of the moon and the related tidal effects.

The synchronized multi-display Augmented Reality system (Figure 2) could be stroked by the turntable showing the relationship between the moon and the earth, and this system shows the corresponding four images on the screen, including the image directly from the internet camera, the phase position of the moon, the relation schema of the earth and the moon, and the tidal effect (Figure 3). In the multi-image group, the screen is divided into four parts to show different images, and these four images could be shown at the same time, with their positions changing according to the relative time in the turntable. The single-image group, on the contrary, showed just one image once, and the displaying sequence is planned by teachers according to the course schedule. By comparing these two groups, we can discuss whether the presentation methods of teaching materials would affect the cognitive load of learners or not.

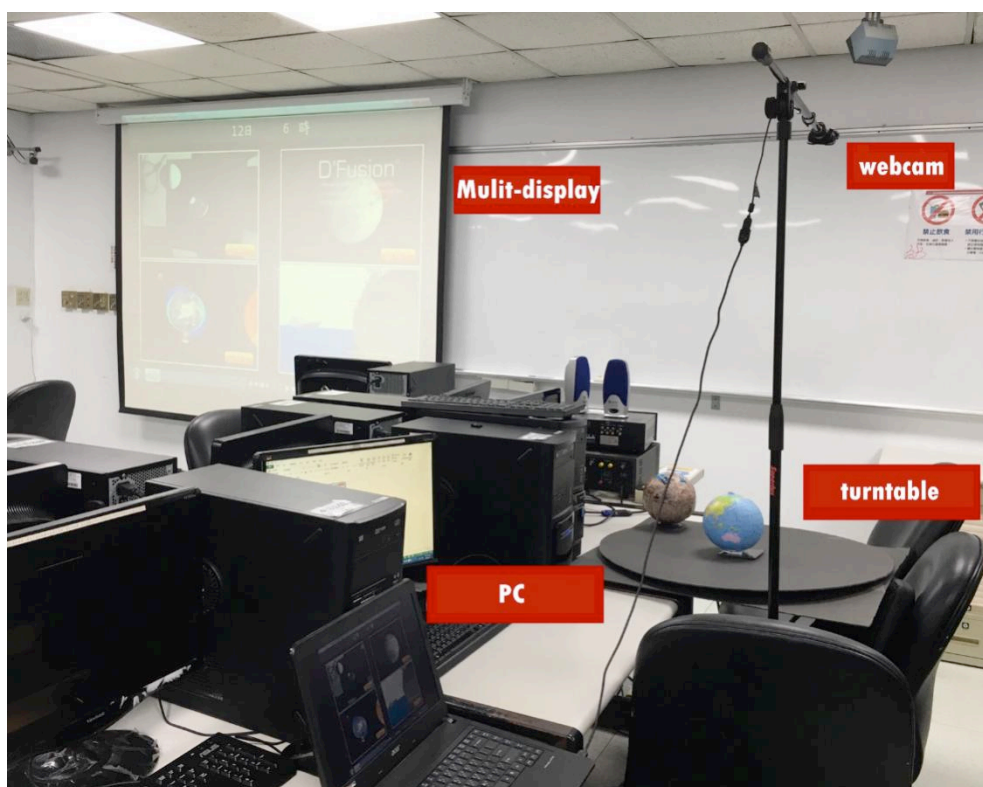


Figure 2 The synchronized multi-display Augmented Reality system



Figure 3 Synchronized multi-display of phase of the moon and tidal effect.

Implementation

The implementation process of this research differed during the experiment due to various kinds of teaching method, but the teaching content and the total teaching timespan are the same. A pilot test was done to gather user information for necessary modification: we chose 25 reliable test objects to test the reliability of the size chart, and then modified the teaching process based on the result.

The formal experiment was carried out in an elementary school in Taiwan. We chose three classes with 76 students in total as the experimental subjects, and they were divided into three groups based on their original class: one was the traditional teaching group in which we used the slides, another was the synchronized single-image AR group, and the other was the synchronized multi-display AR system group.

Students of each group were divided into sub-groups with 7-8 students each. The teaching content was the relationship between moon and tide, and was kept the same as we used the same learning sheets. The whole experiment was carried out sticking to the teaching process.

Figure 4 shows a real scene of implementation in the classroom.



Figure 4 Classroom implementation

Findings

Table 1 shows the measure results of different teaching methods in pre-test and post-test.

Among these three different teaching methods, the posttest mean for single image exhibits a higher score than that of the traditional group and multi-image group.

Table 1 Descriptive data of learning achievement

Group	Pre-test mean	Post-test mean	Post-Pretest gain	Number of subjects
Traditional	41.23	58.04	16.808	26
Single-image	37.56	68.48	30.92	25
Multi-image	39.72	56.72	17	25

Next, we used two-way ANOVA to analyze the effects of spatial ability and displaying methods on learning achievement, both exhibited significant results ($F=6.380$, $p=.003$, $F=4.314$, $p=.017$, respectively, see Table 2). However, displaying

method (group) have no obvious interaction effects on spatial ability and learning achievement. but in this research, we still compared the effects of teaching methods on different level of spatial ability, which means that we examined the difference of learning performances of learners with high, medium and low level of spatial ability in different groups. What we discovered was that learning performances of students in the single image group were better than the other two groups for learners with medium or high level of spatial ability. As for learners with lower level of spatial ability, there was no obvious difference between students in the single image group and the traditional teaching group, however their performances were all better those in the multi-image group(see Table3&4).

Table 2 Two-Way ANOVA on learning achievement

Source	SS	df	MS	<i>F</i>	<i>p</i>
group(A)	3691.938	2	1845.969	6.380	.003
spatial ability(B)	2496.240	2	1248.120	4.314	.017
A*B	1150.931	4	287.733	.995	.417
error	19094.960	66	289.318		

Table 3 Simple main effects

Traditional	Adj. Mean	SD	Case
high level	70.14	13.031	7
medium level	51.53	21.344	15
low level	61.25	12.285	4
Single-image			
high level	76.00	14.394	6
medium level	74.00	17.288	10
low level	57.33	18.214	9
Multi-image			
high level	64.36	23.484	14
medium level	52.13	15.385	8
low level	33.33	26.502	3

Table 4 post hoc

(A)Group	(B)Group	Mean Difference (A-B)	SD	<i>p</i>
Multi-image	Single-image	-13.130	5.117	.012
	Traditional	-.360	5.063	.944
Single-image	Multi-image	13.130	5.117	.012
	Traditional	12.770	5.084	.014
Traditional	Multi-image	.360	5.063	.944
	Single-image	-12.770	5.084	.014

We also used Two-Way ANOVA to analyze how learners' spatial ability and teachers' teaching methods affect the cognitive load, with the covariant being the scores learners gained from the cognitive load scale. The results are shown in Table 3: The teaching methods and spatial ability have no obvious interaction effect, and both displaying method and spatial ability have no significant effect on cognitive load. Therefore in this research we believed that different teaching methods have no

obvious effects on the cognitive load of students with different level of spatial ability.

Table 5 Two-Way ANOVA on cognitive load

Source	SS	df	MS	<i>F</i>	<i>p</i>
group(A)	137.386	2	68.693	1.692	.192
spatial ability(B)	166.433	2	83.216	2.050	.137
A*B	142.696	4	35.674	.879	.481
error	2719.825	67	40.594		

Conclusion

Based on the statistic results, we concluded that generally speaking, the learning performances of learners in the single image group is better than those in the other two groups; as for learners with different level of spatial ability, those with medium or high level have good performances in the single-image group, but for those with low level, probably due to spatial ability restraint, only some of them are suitable with the single-image teaching method, and the rest still have better performances when under the traditional teaching method.

In terms of the difference of learning performances, the possible reason could be that the synchronized multi-display AR system shows multiple images simultaneously, which might confuse elementary students; for the single image group, on the contrary, students are able to concentrate on the single information with teachers filtering the images shown according to the teaching progress, so they can learn more efficiently. As for cognitive load, there is no obvious difference between three groups; It could be that elementary students are too young to correctly respond to the cognitive load inventory.

After this research, we accordingly suggested that the effects on elder learners, e.g. junior high school students, should also be investigated on further studies.

Acknowledgements

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Project-Based Approach by Using the Song-Lyric Method in Teaching English Writing for Students of Music Department

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Abstract

This study discusses the problems that arise to increase the ability of English writing skill of students at the Department of Music, Faculty of Performing Arts, Indonesia Institute of the Arts of Yogyakarta. Project-based approach that becomes a part of English for Specific Purposes is one of the alternative proposed approaches to be applied to art students where English is certainly necessary to accommodate their competence. The needs of English lecturer and students of Music Department to study the method of such approach to learning English writing skill which is more interesting and challenging would be accommodated when the English song-lyrics writing is considered to strengthen the ability of their English writing skill. The writing skill by writing the English song lyrics also involves the vocabulary and grammar skills at the same time. This research is a qualitative and descriptive research. Interviews, distribution of questionnaires, and observations have been made to support the research and show that learning English for the students of Music Department should include their needs for English and the provision of English language materials which are more varied by engaging the creativity of students in applying their English language skills in the classroom and outside the classroom. In addition, the research results demonstrate the effectiveness of the teaching writing and the understanding of vocabulary and grammar as well as their application in writing song lyrics.

Keywords: Project-Based Approach, Teaching Writing, English Song Lyrics Writing, Students of Music Department

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Introduction

Projects in English language learning may provide many opportunities for art students to be actively involved in the use of language in an authentic manner. In addition, they are also required to use their English skills when working and presenting the results of a project that have been done. In responding to these issues, a project-based approach is then supported being implemented in the English class of music students as it also becomes an alternative method for teaching English in the art colleges, particularly for actively supporting the teaching and learning process in the Music Department, Faculty of Performing Arts. This can help the students of Music Department who have different level of English mastery to be more active in implementing the ability to write, speak, read, and listen.

This research is considered to represent the needs of English language lecturers and art students of the Music Department to learn the approach method of English writing which is interesting and challenging by writing the English song lyrics so as to strengthen their English writing skills by involving the processing of vocabulary and grammar ability at the same time.

Based on the previous description, there are two main problems which are examined by this study, how the project-based approach is applied in English writing class of Music Department and how the project of song-lyrics writing can be implemented in the English class which can give the significant effect to the writing skill of students of Music Department.

Literature Review

Teaching English in foreign language classes for art students requires several approaches and methods to be applied. Although in the era of post-modernism the lecturer as the main role of the learning-teaching is currently not obsolete, the lecturers still can be a facilitator for students and the ones who decide the most suitable and appropriate methods. However, lecturers must be committed to the success of teaching and learning English so that either the expected results or the objectives of the learning process itself can be achieved well.

Teaching English which is applied in art colleges is basically a part of English for Specific Purposes (ESP). ESP is an approach to teaching a language in which all decisions on the content and methods based on the learner's needs and reasons for learning (Hutchinson and Waters, 1987: 19). As it has been known for the English lecturer in the arts colleges, English which is taught or presented to the students is English for special needs (English for Specific Purposes). The core question of the ESP should be: "why do students need to learn a foreign language?" According to John and Machado in Murcia (2001: 43), ESP is a movement that is based on the proportion of all language teaching delivered to students by considering the special needs of learning and language of the learners in which they are to use the English as a socio-cultural context and cannot be separated from the needs of English in all areas where English is widely used involving many components.

Based on the above description, the English teaching-learning process and activities at art colleges refer to the characters of ESP for which the language learning is designed to meet the specific needs of learners; relate to the content of specific fields; relate with or be designed for specific disciplines; can be used in particular teaching situation or for different methodology of teaching general English; and emphasize basic knowledge of the language system, but can be used for beginner level learners. This study discusses on the project-based approach which provides more opportunities for students to engage directly with the authentic language. According to Stoller in Richards and Renandya (2002: 109), a project-based approach is a vehicle for the English teaching as a whole and integrated, where it also assists lecturers in implementing the patterns of English teaching in general, EAP (English for Academic Purposes), ESP (English for Specific Purposes), and English for Job, Vocational, and Professional Purposes. As Stoller's ideas in Richards and Renandya (2002: 110) become the reference for the applied approach to the provision of independent tasks or groups held in English classes for art students, especially students majoring in music who are supposed to engage actively to the learning situation where a project-based approach can be applied in the English class. For the art students need to be more independent learners and get involved in active communication as musicians or art workers, therefore, the English lecturer should find some projects which can be done in groups or individually.

The song lyrics writing is one of the proposed techniques of English learning activities applied in the English classroom of Music Department. The lecturer has been deeply investigating the students' competence and mastery of English, and the needs as well. By considering the level of English competence of Music students, the lecturer also takes proposed ideas by Sokolik as the points to set the project of song lyrics writing implemented in the English class. Sokolik in Nunan (2003: 92-95) states some principles in the teaching of writing that can be adapted to the different learning atmosphere, namely:

a. Understand the reasons of learners to write.

A lecturer and learners should have an understanding which is in line with the objectives of the school curriculum and teaching institutions, and the lecturer must be able to convey the purpose of learning to the learners.

For the project of English song lyrics writing is a part of the learning purpose of achieving English mastery for music students, then it is supposed to accommodate the need of applying vocabulary, grammar, and writing skills of music students. The lecturer gives more freedom for students to explore their critical thinking and ideas by making English song- lyrics.

b. Provide many opportunities for learners to write.

Writing skills always increase by more frequently practices. Therefore, lecturers should provide a wide range of diverse writing activities in class.

In accommodating the needs of the students, the lecturer should be aware of always bring the up-to-date phenomena or issues in relations with their major as musicians and young people into discussion.

c. Give helpful and meaningful feedback.

Learners need any feedback or assessment of their writing, although it does not always give the intended effects. Lecturers must have the extra time to discuss with students in the classroom.

Frustrating and lack of interest may occur during the process of writing. Therefore, the English lecturer of Music Department provides some guidance to assist the students in writing the targeted topic to be explored as mixed level of students' competence need to be considered when the lecturer gives feedback to the students' English performance.

d. Explain yourself and students how their writing will be evaluated and assessed clearly.

It gives us clear information that a lecturer should avoid subjective assessment in order to avoid statements which are not expected from learners. The lecturer can provide a systematic assessment of transparent and systematic for learners as a material to develop the content and ideas of their writing.

The English topic developed into a writing project encourages students to compose more writing ability in class. Clearly explanation with the standard of the evaluation and clear purposes of writing should be carried out as the lecturer and students get more values in communicating the project, applying the language skill, and exploring their ideas freely.

Kroll in Murcia (2001: 224) suggests the techniques of teaching writing in a language class which are suitably applied in this project, they are as follows:

1. Brainstorming, which is a technique of exercise in which the learners in the class are encouraged to play an active role in sharing knowledge about a certain topic.
2. Free writing, which is a technique of writing exercise which helps foreign speakers to overcome the difficulties of starting the writing exercise freely. In teaching English as a foreign language, this technique is the best when lecturers provide the guiding or opening sentence for learners.

Free writing combined with brainstorming is commonly used in teaching English writing at Music Department. Some basic considerations are taken during the process of need analysis of students in learning English. Free writing which is combined with brainstorming may influence students to draw their concept of thinking while they try to figure out the topic to explore into writing. Although language errors made during the learning activity become the lecturer's attention, however, the most important part of this activity is that students can explore the topic based on their critical thinking and points of view in developing their ideas to compose the song-lyrics. The result of this project lies on how they can produce good song-lyrics.

Methodology and methods

This study uses a qualitative method with descriptive analysis. In analyzing the song lyrics writing in teaching of English writing, the researchers used a subjective approach which produces the qualitative research.

The samples of this study were students of music department who took an English subject. The sampling technique used was "non-random sampling", i.e. not all

individuals in the population are given the same opportunities to set up as members of the sample.

This study also used some instruments, such as students' journal, photos and videos, questionnaires, as well as the CD-audio recorded music as the project results. Meanwhile, for the research implementation, the qualitative data was obtained by doing the followings:

1. The observation of music students who joined the English class, especially during the process of writing project;
2. The distribution of questionnaires to students majoring in music following the English class in even semester period 2015. Respondents in this study consisted of thirty students which were divided into six groups and were considered as the representative of the population.
3. The video recording and taking photographs of student activities during the writing project in the classroom.
4. The collection of students' journal on the writing project from the beginning to the end of the class period and then provided feedback to the students to obtain the expected results.

The object of this study was the results of writing project of students majoring in music who joined the English lecture and at the end of the project they gave the result of musical compositions and song lyrics in English. The result of the study was in the form of the song-writing project done in groups of thirty students consisting of four to five students per each. Meanwhile, the subject of this study was the Music Department students who joined the English subject in the even semester period of 2014-2015.

In this study, the observation and interview techniques were used to see, observe, and record any information from the sources and object of research, allowing the researchers notes that the situation with regards to knowledge which is obtained directly from the data. Interview and distributing questionnaire techniques which were also combined with the observation technique were useful to determine the acceptance and understanding of the students in implementing the song lyrics writing project. The researchers also documented the journal of song lyrics writing project from the beginning to the end in the form of their original works in the format of a song with the musical composition.

The analysis technique of this research was descriptive analysis. The data analysis process was done through several stages. The first stage was to identify, collect, and select the relevant data with the object and subject of research, so that the data presented was in accordance with the subject of the issues raised in this study. The data analyzed was based on the results of the literature study; observation, which includes the distribution of questionnaires; taking pictures and recording activities in the classroom, and the results of student's project. These four things were then processed into data which were analyzed and evaluated as the basis and reference for answering the problems proposed in this study. The final data analysis stage was to present the data in accordance with the needs of researchers in interpreting the results of the research and as the reference of researchers in designing the instructional materials for teaching English writing.

Discussion

The English lecturer provided clear and understandable instruction of project. This was clearly used to minimize the lack of information occurred and to maximally obtain the students' focus in applying their English writing skill. For the focus was the exploration of vocabulary and grammar skills, the lecturer suggested the students to carefully emphasize on their productive sentences which were always discussed in each meeting for formulizing the final productive result of English song. Their effort was being appreciated and it was the lecturer who gave them points to be revised and clarified the mistakes of grammar or vocabulary products to be well acknowledged. Each meeting was accommodated by each group to compose good English sentences referring to the English song project. Through several meetings of discussion and revision, the final outcomes of the project were finalized. The students were impressed and enthusiastic toward the project. The impacts and contributive learning outcomes were seen through the song lyrics and performance of each group.

According to Harmer (2007: 326), there are two main ideas in teaching writing; we can either focus on the product of writing or on the writing process itself. In this project of song-lyric writing, both ideas proposed by Harmer are used. Students are encouraged to brainstorm ideas, draft a piece of writing, generate more ideas, re-draft, re-edit, and so on. The process of writing the song-lyrics was then focused as the students of music department should understand the writing process such as: pre-writing phase, editing, re-drafting, and producing. Focusing on the process of writing, the project-based approach applied in the teaching of English writing in the Department of Music was performed in several stages: preparation, implementation of the project, assessment and presentation of work. These stages would also refer to Fulwiler (2002:16-17) who proposes a composing process of writing which later be adjusted to the needs of students' project of song-lyric writing as he proposes exploring, drafting, researching, revising, and editing which can be adapted to the students' project of writing the song-lyrics.

a. Preparation

This stage refers to the process of brainstorm ideas, exploring ideas, and drafting a piece of writing work, i.e. song-lyrics. For this stage, the role of the lecturer as the researchers assisted the students in exploring their ideas and letting them free to navigate the ideas into a sequence of flow-ideas.

b. Implementation

In implementing the process of composing the song-lyrics, the lecturer and students may focus on editing, re-drafting, and producing into a final stage of writing process. The lecturer's role as the facilitator would be important when she did the research of students' writing and checked the students' works to revise. Then, after revising and editing the works, the students may come to the next stage that is producing in which their product of song-lyrics writing could be presented and assessed through a music composition.

c. Presentation and Assessment

This is the last stage of students' project of producing the writing work. And it can be understood that the writing process is as important as the product in which the students' ability to pass the process would be addressed to the final stage of producing the song-lyrics. Through this final stage, the final presentation and assessment would be positively reinforced the students' self-confidence and free-expressed nature of their musical skill which later may influence their English acquisition.

Below is the 10-meeting of finalizing the project which was carried out by the students of music department.

Meeting 1: The researchers conducted a pre-study to provide details of project information and review of students' English competence orally or written, and the subject of research. This could reveal the understanding to which the subject of this study has the ability or level of competence in English.



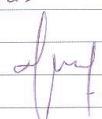
Halida Bunga Fisandira
14100040133

No
Date 1 - 4 - 15

I'm Dido. I am 19 years old, and I'm a composition student at Indonesian Institute of the Arts, Yogyakarta. My musical journey was incredibly amazing, at least for me. I started my violin lesson since I'm in the 3rd grade of elementary school. At that time I join some orchestra, like Orsul (Orkes Simfoni Nasional Indonesia), and Taman Surapati Chamber Orchestra. Time flies, after graduate from high school, I decided to take the vocational high school music collage. Since 2011, I focused to my passion, Arranging, play violin, and sing, and one of the greatest experience in my life was in 2013, I went to Spain, with The Indonesia Choir, being one of the Asia's Representative for Tolosa Choral Contest. It was a really great time, I met a lot of people from different country, and got a lot of lesson, like a real vocal technique, conducting, and of course culture. After graduate from highschool, I take a Violin master class & Music Camp with Prof. Terje Moe Hansen from Norway.

I'm really thankful for My God, for giving me such a beautiful life. I enrolled as a new student at ISI Yogyakarta, and there's no doubt for me to not to take a composition program. That was what I write in my diary since I'm in the 1st grade at elementary school. As a composer, and now I'm a secretary in the B.S Composers Collective, an organization for composition students in Campus. and now I permanently one of the 1st violin at Indonesian Youth Symphony Orchestra (IYSO), with a great music director from Japan, Kanako Abe. So that's all my story for you. Last but not list, there's a hope in this whole description. I'll push myself, until I got what I dream, not only for me, but I want spread my music, to friend, people, and of course my Indonesia Raya.

Regards



JOYKO® 36 Lines, 6 mm

Figure 1: Free Writing.

Meeting 2: The researchers explained the project of song-lyrics writing in English to give clear ideas of the project. Afterwards, the researchers asked the students to make a group of four students for each. On average they chose friends that they had known as the members of the group, not based on the ability of English.

Meeting 3: The researchers asked each of the groups to create a common literary theme which they then used to make a mind mapping and brainstorming in order to guide them for flowing or songwriting ideas. The mind mapping of each group was then collected and researchers made corrections and provided feedback.

Meeting 4: The researchers gave examples of song-lyrics in English and asked each group to analyze them based on their understanding. Afterwards, the groups were suggested to develop their own song-lyrics by using the mind mapping they had done as a source of ideas.

Meeting 5: As each group started to present the weekly report, the research directly provided feedback by doing a little interview to representatives of the group about what they had done and what the problems they encountered.

English class

No
Date 6/5 15

* Weekly Report *

Second Report

We have finish the song, but we have not record the audio yet, because we still don't get the sound card. We planned to make the video by collecting our drawing picture about the song. The song is telling about someone who didn't know that she has someone who always stay by her side no matter what. Then she realize, everything is late.

Group's member :

- Dina Yulio W (14100180131)
- Kurnia Sukma E (14100240131)
- Larasati Ratna A (14100060133)
- Malik Hasanudin

KENKO® 36 Lines, 6 mm

Figure 2: Journal of Weekly Report.

Meeting 6-8: The groups gave their progress report to the researchers and if the researchers assumed that the song-lyrics was considered good and did not need to revise both in terms of grammar and vocabulary, then they were recommended to start composing and arranging the song.

Meetings 9-10: The researchers conducted interviews and distributing questionnaires to individual research subjects.

Meeting 11-12: Upon completing the production of song-lyrics and musical compositions, and recording in DVD or CD format, furthermore, they presented the results of their song-lyrics project in front of the class at the end of the semester. The evaluation of working on the project was started from the first meeting when the students provided weekly reports of the project until the day when they presented a song accompanied by music instruments in front of the class.



Figure 3: Students' Performance

The findings of the study addressed to the following discussion are based on the data reviews of thirty students as the research subjects and research results. They are as follows:

1. The results of questionnaires and interviews carried out by the researchers are as the supporting data to analyze the students' needs on doing the English project for their English mastery which are as follows:
 - a. English is important because it is widely used around the world. By having a good command of English we can perform activities related to networking and building relationships, and sharing ideas with other people as well.
 - b. English is one of the most important ways of communicating. By having a good command of English, students have more opportunities to develop their talents and skills.
 - c. Students are expected to master the English language because they have to get more vocabulary and reading skills of English literature in developing their critical thinking as a student.

- d. Students of music department need to learn English to more easily communicate with foreigners/experts/musicians that come to Indonesia, in particular. By learning western music, they automatically welcome any cooperation and partnerships with the native speakers of English.
- e. English has become one of the major important elements for studying abroad.
- f. Learning English for students of music department is said to be very important because it is an international language. Arts workers and experts in the field of arts are easier to get more opportunities to develop their potential in the world.
- g. Music is widely developed in the universe and being well received by all people from different genres, ages and countries. Therefore, English makes communication and learning process easier.
- h. As a musician and an artist, the English language is needed, especially for students to broaden and strengthen their knowledge and understanding in music.
- i. English not only becomes one of the international languages so as to face the development of the twenty-first century, the music students have to master the language, especially English as the primary language in developing skills and potential to understand music more extensively and comprehensively.
- j. The English language is required in the learning of music because there are many things about literature to music and its development. By having the knowledge and understanding of English language, reading and understanding the literature in English are much easier and helpful.
- k. Providing a song-writing project is very attractive to students in the Department of Music where they can develop the ability to write in English which is in line with their abilities in music.
- l. The project of writing the song lyrics and making the musical compositions with friends in one group has demanded them to be able to work well together to produce an original English song which competitive and deserves to be presented.
- m. Writing English song lyrics has been implemented through several stages of evaluation in which it can be used as a reference for students of Music Department in processing vocabulary, choosing the right words which are appropriate to the musical arrangement, applying the standard grammar but not stiff for being used in English song.
- n. The awareness of Music Department students for the importance of English writing exercises constantly may develop the writing skills based on the mastery of grammar, reading, listening, and vocabulary of English.

2. The project-based approach on the English song lyrics writing refers to the applied stages and is presented and as the followings:
 - a. Preparation
For the preparation, the researchers prepared materials of project or assignment given to students. There are three main points for this material for which the project was a group project and the final outcome of this project was in the form of song-lyrics in English accompanied by the composition of the song with the musical arrangement as well; themes and composition of songs were free in forms or genre; and the project must be original work of the students and free from any plagiarism or copy version.
 - b. Implementation
The researchers gave a time scheduling of the implementation of the project of song-lyrics writing and the musical composition for ten (10) meetings with the assumption that each group gave its weekly report of what had done and did the presentation or consultation with the lecturer. When the analysis of song-lyrics writing in English was completed, each group must present the work of their songs. Students reported their progress in writing the lyrics weekly. The lecturer as the researchers gave feedback and suggested revision on students' vocabulary and grammatical errors. There were fourteen active meetings in the semester term, and then the students made the finalized English song-lyrics before they recorded it along with its music composition.
 - c. Presentation and Assessment
After finalizing the lyrics and music composition they recorded their music composition accompanying the song into DVD or CD format which were performed in front of the classroom at the end of semester term. The assessment was conducted by the researchers considering several aspects, namely: lyrics, included choice of vocabulary and grammatical correctness adjusted with the song, arrangement and composition of the music accompanying the song, and the presentation of the song in the group.
3. The significant results of implementing the project in the English class of art students of Music Department are also supported by the project-based approach which is suggested by Stoller in Richards and Renandya (2002: 110), namely:
 - a. The project-based work of song-lyrics writing focuses on learning the language, which focuses on the process of writing.
 - b. The nature of the project-based work by students of music department is more collaborative that they collaborate to compose song-lyrics with the musical composition for the song accompaniment.
 - c. The project-based work done by students of music department is potentially able to motivate, stimulate, empower, and challenge where it leads to the results of building the learners' confidence, self-esteem, and self-reliance.
 - d. The project-based approach is a part of English teaching writing methodology which is actively able to support the process of teaching-learning at Music Department.
 - e. The given project to music students at the English class can give them many opportunities to get actively involved in applying the language authentically.

- f. Free writing and brainstorming are two writing assessment techniques to support students at Music Department in overcoming any obstacles in starting the writing project or tasks freely, especially in writing the English song-lyrics.
- g. The English project in writing English song lyrics and composing the music can help students become active learners to implement and practice the language abilities, such as writing, reading, listening, and vocabulary.
- h. The English writing which is interesting and challenging in the form of writing the English song lyrics can strengthen the students' writing skill by involving the ability of vocabulary development and English grammar at the same time.
- i. The English lecturer actively supports cooperative learning by guiding students to share their competence, minimize negative competition among students, and enhance students to consider themselves as a team and more to work in groups.
- j. The lecturer's role is as the facilitator who is able to support and increase students' writing ability which is accordance with students' needs and English curriculum for arts students.

From the above research analysis and discussion, it is well acknowledged that the English teaching-learning method which should be applied in the English class of Music Department is by more focusing on active learning, various techniques and methods based on students' needs and art curriculum, various learning activities based on students' level of competency, and learner-centered basis.

Conclusion

The project of English song lyrics writing implemented in the English class of Music Department students has been regarded successful when they students have successfully followed the stages of processing the English writing technique. The proposed technique is in accordance with the needs of students to acquire English. As the project-based approach is a part of English for Specific Purposes applied in the English class of art students, then a certain technique in teaching writing has been set up to the highly configuration of students' English mastery. English song lyrics writing becomes one of the writing techniques which is implemented in the English class of music students. By doing the final stage of composing song lyrics along with the music composition, the need analysis of students of the Music Department is formulated. Therefore, it may be concluded that the project-based approach with the song lyrics writing is done successfully yet also needs to be developed more in obtaining the more language acquisition of students.

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*A Gentleman's Education -
The Birth of the Public School Ideal in Mid-Nineteenth Century*

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Abstract

Thomas Arnold, headmaster of Rugby School from 1828-1842, is usually seen as the one man who created the modern public school. Yet the public school movement in the mid-nineteenth century was more a response to the demands of a particular section of a rapidly changing society. Arnold and his disciples first voiced and then channelled this demand. Various changes stimulated the growth of public schools and the desirability of a public school education: the spread of railways, the competition for scholarships to Oxbridge, and the growth of examinations for the professions. Perhaps most importantly, a desire for a 'gentleman's education' and the opportunities such an education offered was growing among the aspiring middle class. Public schools offered an education in character: boys were taught first the acceptance of authority and then the exercise of it, 'healthy' outdoor pursuits would curb the tendencies of boys to slovenliness, and a classical curriculum would cultivate pupils and ready them for leadership. In meeting this demand the public schools first reformed, which fuelled further demand, leading to an explosion in the number of public schools throughout the second half of the nineteenth century.

Introduction

The nineteenth century educational provision was effectively organized around what Anderson (2012, p. 484) refers to as a “hierarchy of prestige”. The poor could attend private day schools and Dame schools offering a basic level of elementary education, Sunday Schools focusing on scripture, and, after the 1833 Factories Act, factory schools. The middle classes relied on old provincial grammar schools, newer private schools, and dissenting academies, for those outside of the Anglican faith. For the upper classes there were the old public schools, staging posts for those destined for university, parliament or Church. There was not very much ‘public’ about them: the name derives from the fact that originally the schools were grammars that provided places for poor pupils. Gradually fee-payers accounted for much of the intake. Yet at the turn of the century such schools were in a ramshackle state. Many well-off families chose a tutor-based home education for their sons, others the expanding Georgian army and navy. Public schools of the time had little to recommend them.

A general atmosphere of unruliness pervaded the public schools, run through a form of “anarchy tempered by despotism” (Stachey, 1948, p. 166). Writing of his time at Westminster school in the 1810s, one old boy claimed: “The boys fought one another, they fought the masters, the masters fought them, they fought outsiders; in fact we were ready to fight everybody” (as cited in Field 1987, p. 62). In 1710 Winchester boys had mutinied over beer rations (Custance, 1982, p. 337). In 1768 a rebellion at Eton over the rights of prefects became the first of a series of seven uprisings reaching into the 1830s. At Harrow in 1808, for example, prefects rebelled to reaffirm their rights to flog other pupils. Winchester experienced six other student rebellions, Rugby had five (Ogilvie, 1957). Some rebellions were violent. In 1771 the carriage of a visiting Harrow governor was attacked and the school closed for nine days; in 1797 an Eton staff member was taken prisoner, precipitating the reading of the Riot Act and a summoning of soldiers and special constables and armed farmers. Winchester's warden was held hostage by pupils armed with axes in 1818 and the army called in.

Many public schools were understaffed. In the late 1760s twelve masters at Eton were tasked with the education of 520 boys (Turner, 2015, p. 63). The lack of masters was often rooted in the desire to reduce overheads and turn a profit. The consequence was terror and flogging was used to impose discipline, and rote-learning using textbooks that were outdated and uninspired was relied on (Simon, 1965, p. 98). Masters and pupils endured an atmosphere of mutual suspicion. The brutal and turbulent school environment may well have been a great preparation for the trials of adult life. Increasingly, however, parents shied away from submitting their sons to such treatment.

Arnold of Rugby

It seems incredible that despite this prevailing image of chaos and brutality and the lack of public confidence in them, by the mid-century the old public schools were enjoying a remarkable renaissance. The nine public schools (Eton, Winchester, Harrow, Charterhouse, Rugby, Westminster, Merchant Taylors, St Pauls, Shrewsbury) had by the close of the century been joined by between 40 and 60 new schools (Bamford, 1971, p. 58). Many grammar schools adopted certain aspects of the public school model. Public school was now considered the ideal place for the sons of

aspiring parents. This mid-century renaissance of the public school sector is commonly seen as the consequence of one man's efforts: Thomas Arnold (1795-1842), headmaster of Rugby school from 1828-42.

Arnold followed a first in classics at Oxford with a fellowship. Aged 32 he applied, somewhat reluctantly, for the headship of Rugby school, initially doubting he would have the power to impose his ideas on the school and make changes. He applied nonetheless and was appointed, largely it is claimed on the strength of a testimonial from the Provost of Oriel, that Arnold "would change the face of education all through the public schools of England" (as cited in Walrond, 1904, p. 586). Arnold made immediate changes, installing boarding facilities for the pupils to be run by assistant masters instead of the boarding houses run by local women. The assistant masters were forced to relinquish outside church income and apply themselves fully to the school, salaries were raised to ease this change, and Arnold instigated regular masters' meetings in which issues could be voiced freely. Through this collegiate atmosphere a strong *esprit de corps* developed. Central to Arnold's vision was the need to encourage the idea of Rugby school as a shared community (Honey, 1977, p. 14).

Arnold's overarching aim as headmaster was to instruct and nurture the boys in an idea of Christian 'manliness' that would replace debauchery and violence with restraint and gentleness. For Arnold manliness meant humanity, "an essentially Christian brew, composed of earnestness, gentleness, truth-telling, dutifulness, compassion, and turning the other cheek" (Hilton, 2006, p. 466). Arnold is usually associated with the Liberal Anglican movement that sought regeneration of the established Church through incorporating moderate dissenters and granting concessions to Jews, Catholics and Unitarians to coax them away from embracing political Radicalism (Brent, 1987). Yet Arnold's faith is more difficult to untangle, and anticipates much of the ambiguities that faith presented to the mid-Victorian generation (Hilton, 2006, p. 464; 466-7). Unusually for public schools, the chapel at Rugby school became an integral part of the school, where Arnold delivered regular sermons on the necessity of faith to real-world living. Boys, Arnold acknowledged, were naturally prone to sin. Boyhood was to Arnold a state of riotousness and insolence "annoying to others, like the gaiety of a drunken man" (1845, p. 41), but through constant application boys could learn the responsibility required of Christian gentleman. Work was a sacred duty, though intellectual ability and achievements were of less importance to Arnold than moral earnestness and the diligent conquering of a boy's sinful tendencies in forming a Christian character. To such pupils Arnold would stand "hat in hand" (as cited in Briggs, 1955, p. 152).

Arnold fostered in Rugby pupils a seriousness of purpose. The formation of character hinged on a self-respect that boys would learn by being shown respect from peers and masters. This idea reverberates into our own time, as does Arnold's preferred teaching style: a coaxing of pupils to explore and examine a topic and discover the answer to a question for themselves - the teacher as facilitator not autodidact. The classics-heavy curriculum persisted, though to Arnold classics had relevance to real-world contemporary problems and was not merely the study of a long-dead world unlike our own. French and mathematics were made regular subjects rather than 'extras' added on to the curriculum. A flag flew close to his study that signaled to boys that of they wanted to discuss a matter with him they could. Arnold encouraged the boys to take

up responsibility for themselves but also for the school itself. Arnold entrusted the sixth form with the governing of the boys outside of the classroom, and met regularly with them to discuss how the school could be improved. The independence granted to older boys built on a longstanding feature of the public schools, yet Arnold instructed the sixth form to govern responsibly, not as tyrants exploiting their power for selfish ends or rabble-rousers ever-ready to fuel rebellion, but as benevolent overseers of younger boys' moral path towards maturity, a sacred duty to the school as an institution. In this, Arnold was merely adapting rather than revolutionizing the existing prefect system, aware as he was that Rugby had customs and practices that bound the school to its past and were worth preserving. Arnold's thinking was very much in line with the prevailing outlook of Liberal-Conservatism of the time, that old institutions were far from perfect but could be improved through careful reform (Briggs, 1955, p. 164).

It is easy to buy into the mythology that grew up around Arnold after his death and believe that he alone was responsible for the growth and popularity of public schools in the mid-nineteenth century. Arnold of Rugby became a legendary figure thanks to Dean Stanley's *Life and Correspondence of Thomas Arnold* (1844) and the success of Thomas Hughes' novel *Tom Brown's Schooldays* (1858). Many further afield believed in his greatness. Thackeray, writing in the *Morning Chronicle*, asked "Why had I not Arnold for a master?" Dickens gushed, "I respect and reverence his memory beyond all expression" (cited in Chandos, 1985, p. 264). Yet Arnold was not the first reformer. Samuel Butler at Shrewsbury (1798-1836) had introduced modern subjects and stressed the pastoral responsibility of senior boys. In Arnold's time Eton was growing in prestige under the stewardship of Arnold's predecessor at Rugby (Woodward, 1963, p. 486). W.C. Lake saw little material change in the school after Arnold's tenure (Chandos, 1985, p. 254-5). Pre-Arnold Rugby school did not experience the lawlessness that Westminster had a reputation for; much of the violence of the eighteenth century schools had been stamped out well before Arnold's arrival (Chandos, 1985, p. 255). Arnold's high-handedness too was off-putting for some, who saw him as an autocrat submitting ill-equipped boys to a crash-course in piety.

Arnold did inspire many ex-pupils to become headmasters and build on his ideas, like Charles Vaughan (headmaster at Harrow), Conyweare (Liverpool), and Thomas Priestley (Mill Hill). George Cotton (future head at Marlborough) attended a Rugby in which the presence of Arnold was still felt. Others were influenced by the posthumous reputation of Arnold that Hughes and Stanley magnified, like Thomas Jex-Blake (Cheltenham College, Rugby) and George Moberly (Winchester). Arnold's ideal of headship influenced the foundation of many new public schools of the 1840s and 50s. Yet the influence of Arnoldian principles was mixed; a Fags' uprising took place at Rugby a few years after Arnold's death, and some of the old coarseness crept back into public schools from the 1870s. An Arnold-inspired reform of the prefect system at Marlborough and Harrow was deemed a success, however (Turner, 2015, p. 96). Lytton Strachey tore Arnold apart in publishing *Eminent Victorians* in 1918, seeing him as a prim, pious man whose energies were misplaced. To Strachey, in retaining ancient languages at the heart of the established public school curriculum, Arnold further entrenched long-existing shortcomings of public school education (1948, p.187).

The Public Schools Inquiry Commission Clarendon Commission was tasked in 1861 with investigating the still much-criticised public school system, leading to the Public Schools Act (1868). Broadly supportive of the public school model, the commission did recommend a widening of the curriculum, though classics should remain the staple diet of every public school boy in its ability to cultivate (Young & Handcock, 1955, p. 900, 905). Arnold's desire to establish faith as a guiding presence in boys' lives proved less influential over the long term. New ideas guided the public schools in the later third of the nineteenth century, a form of salvation through sweat, less the godliness and good learning of Arnold, in which chapel and piety was central, than a godliness through games, in which, when facing down adversity at home or abroad, the stoic 'stiff upper lip' rarely quivered. Arnold would have baulked at this ethic of 'muscular Christianity'.

Still, Arnold lived on as a presence throughout the nineteenth century. Arnold raised the profile of teaching as a valuable profession, encouraging high-flying young men to enter teaching when formerly they would have entered the Church (Simon, 1975, p. 13). The Clarendon report praised public schools for imposing a system that tamed the unruly tendency of boys while purging the tyranny and cruelty of the past (Young & Handcock, 1955, p. 905). Arnold's presence hovered over the report. He himself may not have proved much of a reformer, but, crucially, "great things were attempted in his name" (1960, p. 212). Arnold supplied new schools with institutional confidence: "In the general need for new institutions to find authority from the past, he provided that authority" (Bamford, 1975, p.71). There was a growing realization that the public schools were now to be cherished as national institutions, due, according to the Clarendon report, "to the good sense, temper, and ability of the men by whom during successive generations they have been governed" (Young & Handcock, p. 905).

Yet Arnold's influence could not match larger social and economic forces swirling around outside the walls of public schools, evident at the time of his death and gaining pace through the mid- to late nineteenth century. The subsequent popularity and growth of public school education is better explained by additional factors such as population increase, the spread of railways, and the growth of the professions. What these developments did was fuel the desire among a broader section of society for the 'gentleman's education' that public schools provided.

Population increase

What marks the nineteenth century off from all other periods of British history is the huge transformational impact of the Industrial Revolution, which, as the century progressed wrought important and lasting change to all aspects of life. What also distinguishes the century is the population explosion. In 1781 the population of the UK was estimated at 13 million; by 1851 it was 27 million (Harvie & Matthew, 2000, p. 11). Britain had become a very young country - under 24 year olds accounted for 60% of the total population during the first half of the nineteenth century (Hilton, 2006, p. 5). With so many children around, vast numbers required schooling (or at least education) of some sort. Most did not receive much or any, some would receive plenty. Viewing Arnold as the chief impetus in the rise of the public school neglects the influence of such a young population on the increased numbers of boys entering the existing public schools - in Arnold's tenure and beyond - as well as the need for and rise in new schools to meet the demands of educating many more young Britons.

This is not to imply that population alone accounts for the increased popularity and number of public schools, only that it is one factor among many. Some schools observed an overall trend upwards in intake over the middle decades; others, particularly the London ones, struggled (Bamford, 1967, p. 12-14). School enrollments can fluctuate for a myriad of factors: economic booms and slumps, cholera and disease, a school's reputation, publicity (good and bad), headmasters, resources, war, and the desire to expand intake (Bamford, 1967, p. 4, 6).

The boom in new public schools of the middle decades was driven by the needs of an expanding market. One indicator of an expanding market is the numbers of people employed in education. In 1851 95,000 people were employed in education, 1% of the total working population; by 1861 it was 116,000 (1.2%), by 1871 135,000 (1.3%), by 1881 183,000 (1.6%) (Best, 1971, p.105). Not all were employed in public schools, though a good proportion would have been, at new schools such as Cheltenham (1841), Marlborough (1843), Rossall (1844), and Lancing (1848) Wellington (1853), Clifton (1862), Malvern (1864). A network of public school masters grew up from the mid-century, most of public school origin themselves; many moved between assistant masterships at various schools and then to headships at one or two others.

With the rising fertility rates, affluent families had too many children at home, 'getting in the way' no doubt. Local day schools may have not been adequate, many private schools took boys only up to 14, before apprenticeships or articles. Alternative schooling at grammars or academies may not have been available nearby (Best, 1971, p. 162). Parents would need to scour a wider radius to find a satisfactory school, and, if this meant paying to send their sons away, so be it. Conceivably, this could have been a factor in the rise in popularity of public schools - boarders stayed away, and thanks to an expanding rail network, often miles away.

The Railway

The expanding railway network from the 1840s enabled children to attend public school as boarders, and allow them to return home when required. It also enabled parents and relatives to visit them more easily (and the Penny Post of 1840 made correspondence much easier and quicker). After the success of the Manchester & Liverpool Railway in 1830, rail construction, passenger numbers, and revenue increased markedly (Table 2). Long-distance rail travel became possible from 1838 with the completion of the London to Birmingham line. Most schools up to then were reasonably close to London, before the rail network spread only travel to Rugby and Shrewsbury would be burdensome, despite the late eighteenth century improvement in turnpikes and roads, with pupils commonly arriving back at school after a holiday well after the appointed time (Bamford, 1967, p. 59). Not all schools were conveniently placed for rail access, which makes a simple causation between the railways and the rise of public schools problematic (Bamford, 1967, p. 60). Yet by 1870 most towns had stations (Hoppen, 1998, p. 289), and with the progressive extension of lines to remoter areas in subsequent decades, many schools would have been more accessible by train even if coaches would ferry boys part of the way.

Table 1: *The growth of Railways in Britain, 1840-1900*

	Lines open (miles)	Passenger journeys (millions)	Freight loaded (million tons)	Total working receipts (M)
1840	1,497			
1850	6,084	67		12.7
1860	9,069	153	88	26.4
1870	13,388	322	166	42.9
1880	15,563	597	232	62.8
1890	17,281	796	299	76.8
1900	18,680	1,115	420	101.0

Source: B.R. Mitchell, *British Historical Statistics* (Cambridge, 1988), 541, 545-6.

Rise of the middle classes

Victorian society was far from static. Population exploded, cities grew exponentially, and as the economy shifted away from agriculture, society changed with it. Most Britons had always worked for a living. What changed was the nature of work and the numbers employed in it. A marked change from previous centuries was the growth in number and influence of middle-class professionals.

The Victorians inherited the Georgian vocabulary of the lower orders and the middling sort, in time 'class' was introduced and even then it was always plural - the laboring classes, the middle classes. The early Victorian middle class was more aware of its position between the aristocracy and the labouring masses than at earlier times (Harrison, 1971, p. 129). What defined them was a certain income and standard of life (of housing, diet, clothing and recreation). Historical figures on social class are sparse and unreliable. What can be traced statistically are occupations (Table 2). The top professions grew steadily through the decades, the numbers in other professions shot up phenomenally.

While the position of aristocracy and gentry remained largely unchallenged, despite protests before and after the 1832 Reform Act and throughout the 'hungry forties', the rise of the middle classes unsettled them. Britain was hurtling towards being a predominately urban and industrial future, threatening the traditional form of aristocratic wealth – land – and the middle classes were getting richer but also more politically and culturally significant. As Cannadine (1994; 1998) points out, the upper classes proved doggedly adaptable throughout the Victorian era, diversifying into property, minerals, and rich (often upper middle-class, often foreign) marriage partners. Reform of the public schools was led by middle class opinion, as so much else was and would be through the century (Newsome, 1961, p. 34-35). Arnold himself channelled this reform movement, whose perceived success led to reform spreading to other schools, and in turn the foundation of new schools modeled on reformed principles.

Table 2: *The professions in England and Wales, 1851-1891 (males)*

	1851	1861	1871	1881	1891
Law	15.8	15.2	17.4	19.1	22.0
Medicine	19.2	18.0	19.2	21.2	20.8
Church of Eng.	17.3	19.2	20.7	21.7	24.2
A: Total above	52.3	52.4	57.3	62.0	67.0
B: Other public service and professional	148.6	330.9	372.0	397.7	496.0
A+B: Total professionals	200.9	383.3	429.3	459.7	563.0

Source: K. T Hoppen, (1998) *The Mid-Victorian Generation, 1846-1886*, Oxford: Clarendon, p. 41.

It was thought necessary to assimilate sections of the middle classes, to share power and ward off potential revolution. Compromise and adaption were the guiding themes. The goal for the mid-Victorian generation, FML Thompson (1988, p. 29) underlines, was “fashioning the elements of a new society in step with the appearance of its material and human components.” Central to the assimilation of the upper middle-class was education. The reinvigorated and expanding public school sector of the mid-century could provide an education in leadership, an ennobling endeavour that would create gentlemen from a growing proportion of society in size and significance (Table 3), ready to share the burdens of state and guide Victorian society.

Initially those assimilated were drawn from the middle-classes closest to the aristocracy and gentry, barristers and physicians at the top of their professions, substantial earners who could negotiate with ease the social graces required of Victorian high society. Later, the provincial industrialists were admitted, trailing the successful admission of people like Sir Robert Peel (educated at Harrow and Oxford, son of a wealthy textile manufacturer,) and William Gladstone (Eton and Oxford, son of a Liverpool merchant). Later still were the aspiring sections of the middle class, who sent their sons away to new public schools, more minor than major, so they could receive an education befitting a gentleman. All were transfixed by the magic of the public school ethos, the surest way to be considered a gentlemen and actually become one. The public school had replaced Oxford and Cambridge in importance. From roughly the 1860s on ‘Where did you go to school?’ became the definitive question to ask someone in order to place them.

Table 3: *Male professionals in England and Wales, 1851-1891, as % of male working population*

	1851	1861	1871	1881	1891
Law, medicine, church	0.9	0.8	0.8	0.8	0.8
Other public service and professional	2.6	5.2	5.3	5.1	5.6
A+B: Total professionals	3.5	6.0	6.1	5.9	6.4

Source: K. T. Hoppen, (1998) *The Mid-Victorian Generation, 1846-1886*, Oxford: Clarendon, p. 41.

A shared identity and values were vital to the assimilation of large numbers of the new middle classes, and the public school ethos encouraged this in fostering a love of and loyalty towards the school as institution, larger than any one individual. This was seen as mirroring the entrustment of leadership of the country, broadly understood, whose institutions were the foundation of continued prosperity. Sharing a school in common meant sharing values – and interests. As Dr Arnold's son Matthew claimed, "It is only in England that this beneficial salutary inter-mixture of classes takes place. Look at the bottle-merchant's son, and the Plantagenet being brought up side by side... Very likely young Bottles will end up being a lord himself" (as cited in Briggs, 1955, p. 153).

The importance of shared values among the higher ranks of society was he explicit acknowledged by the Clarendon report. The idea of the public school as national institution emerged:

These schools have been the chief nurseries of our statesmen; in them, and in schools modelled after them, men of various classes that make up English society, destined for every profession and career, have been brought up on a footing of social equality, and have contracted the most enduring friendships, and some of the ruling habits, of their lives; and they have had perhaps the largest share in moulding the character of an English Gentleman. (Young & Handcock, 1955, p. 905)

The increased popularity of public schools was also due to the desire for improvement. Samuel Smiles preached the gospel of improvement, of self-help and industriousness; many bought into it. Entry into Oxford and Cambridge was becoming fiercely competitive, and most of the scholarships available went to public school boys, they were better prepared for the classics inspired exams. This stimulated a scramble for places; there were so many eligible young men about,

certainly more than were respectable positions vacant. This may explain the move towards a more games-focused ‘muscular Christianity’ from the 1860s on. The safety valve of empire was a safety valve for undesirables as well as those desirable – but not quite desirable enough – self-reliant types calm under pressure, destined to staff the colonies as administrators, doctors, missionaries, and military officers.

The recognition of a changing society inspired the push for qualifying examinations and greater professionalization. In 1836 and 1837 the passing of a written exam was required to practice in common-law courts and the chancery court. The British Medical Association was founded in 1858 to oversee the medical profession. In 1858 the College of Surgeons granted special licences in dentistry. This was part of a move towards more meritocratic entry to a variety of professions, inspired by the desire to replace an aristocracy of birth with an aristocracy of talent (Hoppen, 1998, p. 112). The 1854 Northcote-Trevelyan civil service report replaced patronage with open exams for entry to the higher grades of the civil service, though it took several decades before it became standard practice. The cost of commissions into the Army was fully abolished in 1871. The professions became the surest way to respectability and gentlemanly status, a much-cherished value to Victorians. A public school education was increasingly viewed as a first of many steps towards this goal.

Conclusion

The rise of public schooling was more of a process over many decades than a series of events. The reform and growth of public schools was a response to the demands of a particular section of a rapidly changing society. Arnold and his disciples articulated and channelled this demand. Wider changes stimulated the desirability of a public school education: the spread of railways, the competition for scholarships to Oxbridge, and growing professionalization of certain occupations. Perhaps most importantly, was the growing desire for a ‘gentleman’s education’ and the opportunities it offered. In meeting this demand the public schools first reformed, which fuelled further demand, leading to an explosion in the number of public schools throughout the second half of the nineteenth century.

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Building People's Awareness on Using the Outdoor Advertising for Tourism Promotion Case Study: Tourism-Content Billboards in Yogyakarta, Indonesia

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Abstract

The out-of-home (outdoor) advertising is still used as a media campaign that gives many advantages for advertisers because of its benefits. Because of this, the use of out-of-home advertising can be maximized on its potential use for the tourism promotion in Yogyakarta, which is famous as the city of arts and culture. The purpose of this study was to evaluate the use of outdoor advertising for promoting products and tourist attractions of Yogyakarta city, as well as providing education for people in the messages of visual communication, from marketing communications perspective. It is well-acknowledged as well for giving advertisers and local government the educative parameter on appropriate concept of promotion. This is a qualitative research using a case study method. The technique used was observation and library research. The object of this study is the billboard which products and tourist's places of interest in Yogyakarta becomes its content. The result of this study is that billboard's content and design still need to be maximally integrated as media for tourism promotion.

Keywords: Out-of-home Advertising, Outdoor Advertising, Billboards, Tourism Promotion, Persuasive Communication

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Introduction

The development of tourism in Indonesia, particularly in the area of Daerah Istimewa Yogyakarta (Special Region of Yogyakarta), greatly increases. Currently, some places of interest emerge as tourist destinations for domestic (local) and foreign tourists. This also gives effects on a redressing of some existing places of interest in order to attract tourists to visit. From the data of hotel room occupancy, Yogyakarta Central Bureau of Statistics (Statistics of Yogyakarta) presented that the number of domestic and foreign travelers who stayed in hotel in 2015 were 4,056,916 people. It increased 4.62% compared to 2014 as 3,877,771 people. From the figures of 2015, the bureau also added that the percentage of domestic tourists reached 94.62% and foreign tourists were 5.38% (www.yogyakarta.bps.go.id, accessed on August 5, 2016).

The data showed that the growth of number of tourists to visit Yogyakarta certainly refers to its high potentiality for tourism.

Yogyakarta has a diversity of art and culture to attract tourists to visit. There are many places of interest with their unique characters. Some commonly tourist attractions visited are the Sultan's Palace, Taman Sari Water Castle, Malioboro street, some temples (Prambanan, Ratu Boko, Plaosan), GembiraLoka Zoo, waterfalls, natural attractions of Mount Merapi and Kaliurang. As an educational tourist destination, Yogyakarta also has several museums that describe the history, such as Ulen Sentanu, Yogya Kembali Monument and Fort Vredenburg. Besides, Yogyakarta is also famous for handy-craft, like silversmith, ceramics, and *batik*. Moreover, it has strong potentials for beautiful beaches like Parangtritis, Parangkusumo, Krakal, Baron, Kukup, and many more.

Therefore, promotion deserves to be encouraged. Tourism promotion must be improved well. One form of promotion that can be executed is by using advertising media. Tourists and other people know the products and excellent tourist destinations by advertising. In addition to providing information, advertising media also gives the power to persuade consumer and attract tourists to come and visit. One is out-of-home advertising that can be viewed directly by the tourists while they are in the city.

The purpose of this study was to analyze the use of outdoor advertising for promoting products and places of interest in Yogyakarta. Moreover, this research is conducted as a media of evaluation for making billboards more effective so that it can be a learning or educational tool as well for people, advertisers and local government on how to have a good tourism-content billboard in Yogyakarta. This hopefully can be an educative parameter for appropriate concept of promotion from marketing communication perspective.

Literature Review

Out-of-Home (OOH) or outdoor advertising is "any advertising done outdoors that publicizes your business' products and services" (Gurumoorthy, 2015: 92). Furthermore he said that OOH is a form of marketing communication that focuses on consumers when they are "on the go", one of them while in public places. OOH leads and remains to the purchase of products and services. Aligned with this research on OOH and the potential of tourism in Yogyakarta, products and services refer to arts,

culture and places of interests Yogyakarta has. Consumers here are tourists, both foreign and domestic.

Why OOH becomes a great potential for promoting products and services? Outdoor Advertising Association of America says that "consumers spend more than 70% of their waking hours outside of the home, and on average, more than 18 hours per week in a vehicle. Nine out of ten of those trips are in personal vehicles. Sixty percent of vehicle travel is dedicated to regular consumer tasks, common routines, such as shopping, commuting to work, socializing, and eating outside the home." (www.aaaa.org, accessed on August 5, 2016). Not only in America, Negm and Tantawi declared that print ads are more popular among Egyptians. In a research, they also mention that "billboards, fliers, and ads found in magazines and newspaper are common due to the long hours spent during reviews their daily commute." (2015: 4). Strengthening what mentioned before, Gurumoorthy adds that "your audience cannot zap, discard, or even click away from it." (2015: 94)

Another research said that OOH reaches consumers in a wide range. As quoted by Franch, Albiol, and Rutherford (2013: 94), "the most significant characteristic of outdoor advertising is its capacity to deliver a targeted message to the target markets in specific geographic areas (spatial reach)." (Lichtenthala et. al 2006, Bahrgava & Donthu 1999, Kaufman 1989). Duncan also adds the same thing that OOH is a good way to expand the reach. The exposure performed by OOH is 24-hours a day, day and night, rain, heat (Ogunlade, 2015: 7). To be more specific, OOH can "attract people with certain commonalties." (Duncan, 2002: 435). Quoted by Hussain & Nizamani (2011: 61), Mustafa, Sukran, and Olgun (2007) also put another understanding on advantages of advertising through OOH. They said that "out-of-doors promotions generate various ideas; successful updating, influencing customers that are responsive to the situation. Outdoor commercials are attractive, outstanding, and their visibility is increasing."

From all types of OOH like street furniture, alternative media, and transit (Belch and Belch, 2009: 427), billboard is one type of OOH mostly known by people. Shimp (2010: 578) says that billboard spent as much as "two-thirds of total OOH advertising expenditures in the United States." This shows that the billboard has a big role as media campaign for the world of marketing communications.

In terms of emotion, quoted by Hussain & Nizamani (2011: 61), Meurs and Aristoff (2009) stated that "billboard advertisement determines the creative appeal in the favor of the brand / product credit. It develops more understandable branding and an addition of a new product in order to improve product recognition."

Shimp also conveys about the strengths of billboard that advertisers may consider. He mentions that that the billboard has an element of "broad reach and high frequency levels, geographic flexibility, low cost per thousand, and brand identification" (2010: 581-582). In addition, Shimp says that billboards can also be a last reminder before purchasing. These all strengths can be utilized by advertisers, business owners and the government, to be able to promote products and services by billboard. Apart from a few shortcomings, billboard still provides high benefits of providing information to consumers.

On May 2015, a survey on outdoor media in Jakarta showed that 53% of outdoor advertising is by using billboard (www.fakta.or.id). Based on the observation, Yogyakarta also experiences the same thing that most of outdoor advertising media used is billboard. "Billboards are big structure placed in public position which presents advertisement to passing passerby. Most often, they are located on main roads with a large amount of passing motor and pedestrian traffic." (Azad & Boushehri, 2014: 147). In Yogyakarta, people can also find many billboards. Unfortunately, by the issue of Regional Government Regulations of Yogyakarta No. 2, 2015 on the implementation of outdoor advertising, the number of billboards reduces. This is a kind of evaluative program by government on cleanliness and city layout regarding with many billboards placed. (Wicaksono, 2016 on <https://m.tempo.co/read/news/>).

Apart of talking about reduced number of billboards because of government regulations, the number of billboards having content on tourism products (including places of interest) are quite little. There is a contrast ratio between the number of billboard containing products of private business and those containing tourism destinations in Yogyakarta. People seldom find these tourism-content billboards on main roads. It is not easy for domestic and foreign tourists to know the existence of tourist attractions. On the contrary, as explained before, there are a lot of places of interest tourist can visit in this city of culture and arts.

Methodology and methods

This is a qualitative research using case study method. The technique used was observation and library research. Observation was conducted in July-August 2016. The object of this study is the billboard (as one type of out-of-home advertising) in Yogyakarta which local products and places of interest become its content.

This study analyzes four (4) billboards that have a content of tourism, like places of interest, traditional art performances, as well as typical products of Yogyakarta. These billboards are those placed on some main streets of Yogyakarta. This is importantly discussed because of some strength mentioned before. Besides, a research by Thomas (2015: 5) puts an emphasis on its benefits from economical sides becomes one logical thinking for the researchers. He states that

"On-average, medium-sized billboards receive 10,000 to 20,000 views per location per day ... Those who spend thousands to millions of dollars on billboards in the popular advertising locations should want to make them as effective as possible. In all, it is great importance to understand the economics and features that make an unbelievably profitable billboard."

Discussion

Regarding with some advantages of promoting products by billboard, it is necessary to have the content and concept of billboard as effective as possible for the success of the promotion. This section will explain the theory taken to analyze some tourism-content billboards in Yogyakarta.

As quoted by Thomas (2015: 12), Suggett presents theories on basic rules of billboard advertising. There are six elements that must be considered, namely:

- a. Fewer than seven words displayed.
In a normal vehicle speed, consumers only have about 6 seconds to read the billboard. Thus, the words that appear to describe the advertised brand should be simple and short, only about 6 words.
- b. Happy medium: Attract attention, not cause any harm.
It is associated with a creativity developed by the advertisers. This point refers to the creativity of design and art to attract attention in a positive way, and not to create a distraction or even harms. This should be considered as the majority of readers of this advertisement are the drivers of motor vehicles and bicycles, or pedestrians. Also, billboards are only for brand building.
- c. Billboard is not a direct-response medium
Summarizing what Suggett says, "billboards are meant to supplement other forms of advertising with a quick message." (Thomas, 2015: 13). Billboard is just a secondary medium. Strongly recommended not to include a contact number and address (including website address) for 99.9% of people will not call or visit the website. If we hope to have a direct response, promotions in other forms are recommended.
- d. Be smart, but not too clever.
"Smart billboard will grab the attention and leave a lasting impression You are in the business of advertising, not showing off how clever you are," (Suggett, 2016, <https://www.thebalance.com>, accessed on August 6, 2016). Billboard content should not make the reader dizzy, but more on solving problems and meeting needs.
- e. The more the better billboards
Each billboard has a rating, called Gross Rating Points (GRP) based on traffic, visibility, location, size, and more. We should have more than one billboard placed because we want more numbers of consumers read the billboard in a wider range.
- f. Do not say it, show it
Billboard will have more effect if it is delivered not just like mostly flat billboards, but it can be in the form of 3D, have moving parts and lighting. This makes consumers interested to see; for a more eye-catching and memorable billboards for consumers or readers. It might look like a cost, but this is more to an investment.

Reinforcing what has been described by Suggett, Kenechukwu SA, Ezekiel S Asemah, and Leon ON Edegoh (2013: 956) mention the techniques of persuasion that must be there in advertising, namely:

- a. Advertising message and audience.
As an advertiser, we must know what the message will be delivered accurately and to whom. This can be related to the demographic and geographic.
- b. The use of persuasive techniques in advertising messages.
It is about who the role model in advertising is and his or her credibility, as well as the content of the message: logical or emotional.
- c. Understanding the desired effect on the target audience.

Based on the theory presented above, the evaluation of tourism-content billboards in Yogyakarta is as follows:

1. Billboard Ramayana Ballet



Figure 1: Ramayana Ballet Billboard.

This billboard is located on Jalan Brigjend Katamsa. The size is 6x2.5 meters. It is close to the location of Ramayana Ballet venue, Purawisata. The following is the analysis given:

- a. There are a lot of information presented, from the price, address, reservation information, achievements, the number of years of performing, and photos. Billboard is too full of information, so that the message becomes blurred. It seems that the advertiser wants to put as many information as possible on an available space.
- b. In terms of attracting attention, this billboard can represent an attractive billboard only in terms of color and text by contrasting the dominant colors: black, yellow and gold. Positively, there is no distraction or harms impression emerged that may endanger the drivers and pedestrians.
- c. Related with point A above, this billboard precisely conveys detailed information about the contact numbers and website addresses. The advertiser obviously wants to have a direct response. This is not what Suggett suggests as it's not what billboard means to.
- d. The main purpose of this billboard to deliver information on a promotional price to see Ramayana ballet performance is actually good. The key word is actually on promotional price. But because the billboard is full with other information, 'smart' does not appear.
- e. Billboard is only placed on one spot. Researchers did not find any similar billboards on another road.
- f. The advertiser still uses the standard form, flat billboard.
- g. Persuasive language used is: domestic promo.

2. Billboard Welcome to Jogja-by Yogyakarta Tourism Board



Figure 2: Welcome to Jogja Billboard.

This billboard is located on Jalan Mataram. One important note of this billboard is that the local government plays a significant role in the promotion of tourism in Yogyakarta. Participation of local government is what can be an example to improve. The following is the analysis and evaluation:

- a. Talking about 'less words', words on a billboard consists of only three words: Welcome to Yogya. This is good in accordance with the theory presented by Suggett. This billboard is literally just a welcoming board for the tourists. By 80% of images, billboard tries to emphasize on tourism products in Yogyakarta. This can be seen from the pictures and writing: the Kraton (King's Palace), Prambanan (temple), Tugu (Yogyakarta Statue), Kalibiru (natural tour), and Nglanggeran (mountain). Unfortunately, at the top of the billboard, there are many information and messages displayed, from name of sponsor or advertiser (tourism board), website address, the words 'wonderful Indonesia', 'Jogja Istimewa' (distinguished Jogja), and 'welcome to Jogja', to logo. On the other hand, the space available is very small.
- b. In terms of attracting attention, the 2x4meter billboard tries to attract people's attention by showing many images or pictures. However, this little billboard does not give much attraction because of many images displayed. Many images may lead reader or tourist to be less focused and confusion on what images they are. Therefore, the images give less persuasion for tourists to visit. Positively, there is no distraction or harms impression emerged that may endanger the drivers and pedestrians.
- c. Related with point A above, this billboard precisely conveys information about the contact numbers and website addresses. The advertiser requires a direct response which Suggett does not suggest because it is not the purpose of

- advertising product by billboard. Even, the website address is written for twice. Writing website for twice is a kind of waste.
- d. Billboard has not conveyed the needs of readers or tourists on the information about tourist attractions to be visited. Not all pictures can explain clearly about the interesting places there. Therefore, we can conclude that this billboard is not 'smart' yet. One thing to consider is that the billboard should be able to persuade and encourage tourists to come and visit the places. This 2 meter-high billboard is too full to show more than 3 images. We should consider about how tourists can examine detail of images only in 6 seconds.
 - e. Billboard is only placed on one spot. Researchers did not find a similar billboard on another road.
 - f. The advertiser still uses a conventionally flat billboard. If the purpose is to show the tourist attractions in a real way, billboard should be digitalized, or by movie or 3D images.

3. Billboard *Batik Jumput*



Figure 3: *Batik Jumput* Billboard.

The billboard is located on Jalan Veteran. It is a 1.5x1.5 meter billboard. Here is the analysis and evaluation:

- a. There are a lot of information presented, from the advertiser's name and logo, the words 'welcome', type of *batik* (Jumput), tagline (lebih gaul memakai batik buatan sendiri-- be more modern wearing homemade/local *batik*), the location, and email. The billboard is full of information. The advertiser seems to maximize the space available on the billboard. The advertiser does not fully understand how to use a billboard as a media of promotion. Moreover, billboard is also very simple. The simplicity of billboard can be seen by dominant colors of green and white. Other color on this billboard is just a small motif of *Batik Jumput*. For people who know about batik motif, they can recognize that this billboard is featured with a small batik motif at the top. But for tourists or people who do not know about batik motives, the shape and color of image on top do not give any understanding. It's just like giving a design on an available space.

- b. In terms of attracting attention, a simple billboard has not attracted people yet. Simply saying, it's only a billboard that is clearly-seen about the writing. Persuasive messages for people do not appear. This billboard does not create a deep impression that encourages people or tourists to come. This is because of the simplicity of its contents and design that makes it less persuasive. It's just to inform. Positively, there is no distraction or harms impression emerged that may endanger the drivers and pedestrians.
- c. In relation with point A above, this billboard precisely conveys information about website addresses. The advertiser seems to hope a direct response by giving the email address.
- d. This billboard has not conveyed what travelers/tourists need. All information conveyed makes this billboard monotonous and boring. The message is not clear. Therefore, it is not yet a smart billboard. Billboard has no promotional concepts that can arouse people's curiosity to find and buy *Batik Jumput*. This billboard simply gives different types of letters for each piece of information, not yet persuade.
- e. Billboard is only placed on one spot. Researchers did not find a similar billboard on another road.
- f. The advertiser still uses the standard form, flat billboard.

4. Billboard Welcome to the Yogyakarta-A Lovely City



Figure 4: Welcome to Yogyakarta Billboard.

This billboard is located on Jalan Senopati. Based on the theories, here is the analysis:

- a. Billboard shows its creativity and uniqueness by having a design of 'triangle', where most of billboards are in square design. Talking about the meaning of using triangle design, Frutiger (1989) says that "The triangle with horizontal base conveys an impression of stability and permanence." This has a positive meaning for Yogyakarta. People in Yogyakarta really know much this triangle design since this reflects to *Gunungan*. *Gunungan* is mostly used in a leather puppet show in Yogyakarta. As quoted by Muhajirin (2010:42), it has a philosophy that refers to a mountain, a symbol of life. There is a symbol of human, animals, and plants living there. Similarly with triangle's positive point that at the top point of *Gunungan*, it refers to God. This billboard design

- has a good meaning, reminding people of Yogyakarta's culture. This design presents some human's activities on it.
- b. From having less words, words on a billboard consists of only three words: Welcome to Yogyakarta. It is completed with a tagline 'a lovely city'. This is in line with what the theory presented before. The words used should be short and clear. This 'welcoming' billboard, unfortunately, is also completed with other writings: *Yogyakarta Berhati Nyaman*. *Berhati Nyaman* is the acronym of *Bersih* (clean), *Sehat* (healthy), *Indah* (beautiful), *Nyaman* (comfortable). Many words presented make this billboard lost from 'short and clear' point. This billboard is 90% image-presented, showing the Kraton (King's Palace), Tugu (Yogyakarta Statue), some art-work activities (mask maker and players of traditional music instrument), women dressed in traditional clothes, and Malioboro Street.
 - c. On the other hand, by having many images, it does not help people to find out more about the city of Yogyakarta since the images are not clearly seen by distance.
 - Billboard theme is less clear. All human activities and places of interests are there.
 - There is no explanation or writing on the images. This may create confusion. People have to think much to analyze the images. Consequently, there will be various and different perceptions of the tourists towards the images.
 - The size is about 1.5x2.5 meters, small space. However, there are many images displayed.
 - d. In terms of attracting attention, this billboard has not represented much attraction because the theme is lack of clarity. Thus, this billboard is less persuasive, since the message of the picture is less clear. Positively, there is no distraction or harms impression emerged that may endanger the drivers and pedestrians.
 - e. This billboard does not give any information on the contact number and website address. This point is very well to be developed.
 - f. This billboard has not conveyed what the people or tourists need, places of interest. This is not yet smart in advertising world. One point to consider is that not all images clearly explain about what they are doing.
 - g. Billboard is only placed on one spot. Researchers did not find a similar billboard on another road.
 - h. The advertiser still takes standard form, flat billboard. Though, the design is unique. If the purpose is to show the tourist attractions in a real way, billboard should better be digitalized or by movie.

These tourism-content billboards in Yogyakarta above are generally characterized as follows:

- a. Most of billboards put much information on it (web address, location, phone number, etc.). The advertiser seems to give information in details, wishing to help people or tourists see and record all the information. Consequently, focus and attraction grab are less.
- b. Billboard is only placed on one spot, not at some other roads.

- c. Billboards still take standard form, flat billboard, static images, not in digital way. And the most of them are in square design. Only one billboard takes a unique design.
- d. Most billboards use colorful images of activity or attraction. Unfortunately, many images there do not explain much on the places of interest to visit. It may lead into questions and confusion.
- e. We talk about how to promote to attract tourists. Billboard's content and great idea have not yet appeared. Billboard is only limited to presenting images of tourist attractions and art activities, and writings. All of them are in colors.
- f. Communication techniques of persuasive advertising appear less. The advertising messages have not been strong yet.
- g. There are no billboards leading into distraction and harms for drivers or pedestrians.

Conclusion

Seeing about the potentials of the city for its culture, arts, and nature, tourism-content billboards in Yogyakarta still need a lot of improvement in order to bring a lot of tourists to visit various attractions of the city. We need some encouragements on ideas and persuasive messages to present. Although we are now in digital age, the presence of an out-of-home advertising (billboard) as above-the-line media is needed because of great ideas, creativity and idea we can put down here on promotion.

From all the above evaluation, advertisers, local government and people may consider the following ideas or suggestions:

- a. 'No distraction and harms' images that may interfere pedestrians, drivers, and cyclists can be maintained and developed.
- b. It is suggested not to put much information on an empty space which tends to be full of information presented. We cannot hope for a direct response on billboard advertising. Full information makes advertising messages blurred. If we want to have a direct response, another form of promotion media will be suitable.
- c. Focus. If images should be there, single image is recommended for having a focus. It would be better not to have many images on one display that may lead into confusion. Besides, not many words and sentences displayed as well.
- d. Smart advertising. Promotion and attention grab are the points to create interest and curiosity. Therefore, we would be better to provide unique and interesting ideas (words or pictures), short and clear, that could represent places of interests to visit. Smart advertising messages have to be there. In addition, persuasive communication (advertising technique) in advertising should emerge.
- e. A unique billboard design is recommended. We may consider about designing a 3D or 4D billboard, or even a movie and digital version of the billboard. Being digital may give more interests and attention to give a better knowledge of Yogyakarta's potentials on arts, cultures and nature.
- f. The more billboards the better. To reach a wider range of tourists or people to see tourism potentials in Yogyakarta, the same billboard can be placed at some other spots.

- g. If possible, advertisers do periodic changes to the billboard. This avoids boredom or malfunction of information for tourists who always see it. "Billboards need to be changed out frequently, both to keep them fresh and to catch the eye of frequent travelers." (Klebanow, 2004: 39).



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Implementing Mother Tongue Based-Multilingual Education in an Area of Armed Conflict in Southern Philippines: A Case Study

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Abstract

With Philippine schools adopting the use of mother tongue as the medium of instruction from Kindergarten to Grade 3, this case study looked into how the Mother Tongue Based- Multilingual Education (MTB-MLE) programme was implemented in an area of armed conflict.

The current study answered the following questions: 1) How is MTB-MLE implemented in an area of armed conflict in terms of the use of mother tongue as subject, medium of instruction, and auxiliary language; 2) How is the mother tongue integrated in peace education in an area of armed conflict particularly in the curriculum, instructional materials, and strategies.

A public elementary school located in Maguindanao, Southern Philippines was the study locale. As a qualitative research, it used the instrumental case study design involving two Grade 1 classes, and one class each in Grades 2 and 3.

Classroom observations, Focus Group Discussions, Key Informant Interviews, analysis of instructional and learning materials, and surveys were conducted.

Results of the study reveal that Maguindanaon as a Mother Tongue subject was taught in Grade 1 with the teacher using both Maguindanaon and Filipino as media of instruction; however, Maguindanaon as an auxiliary language has not been established in the study.

For the second question, results show that the school indirectly and informally integrates peace education using Maguindanaon through the teaching of values education and in the Arabic Language and Islamic Values Education (ALIVE). However, there is no direct mention of peace, unity and harmony in the lessons observed. Teaching strategies were also very limited.

Keywords: mother tongue, armed conflict, peace education, MTB-MLE, Bangsamoro, multilingual education

Introduction

Results of several local studies in the Philippines and abroad have presented the perception and beliefs of various sectors in society that English and anything related to the West such as music, entertainment, fashion, and anything shown in the mass media are more important than one's own language and culture.

However, this attitude and perception toward the use of the mother tongue and the role it plays in the learning process and lives of Filipino learners are expected to take an interesting turn with the implementation of Mother Tongue Based-Multilingual Education (MTB-MLE) program in Kindergarten to Grade 3 classes.

Based on the MTB-MLE Framework, the mother tongue (MT) or First Language (L1) will be used as the primary medium of instruction (MOI) from pre-school until at least Grade 3. The mother tongue will be used as "the main vehicle to teach understanding and mastery of all subject areas like Math, Science, Makabayan (Social Studies), and language subjects like Filipino and English" (DepEd No. 74 Enclosure 1, 2009:1).

For this case study, the study locale is part of the Autonomous Region of Muslim Mindanao (ARMM), wherein students learn using their mother tongue, Maguindanaon aside from the national language Filipino and two foreign languages specifically English and Arabic. Other than that, the school is also located in an area of armed conflict.

Thus, this specific case study attempts to offer a snapshot of how the current language policy is being implemented in an area regularly besieged with armed conflict due to its peoples' "aspiration to chart their political future through a democratic process that will secure their identity and posterity and allow for meaningful self-governance (Draft Basic Bangsamoro Law, BBL 2014, Art. 1, Sec. 3).

Literature Review

Educators and researchers have long studied the issue of what language should be used in formal and informal education in order to provide the best method of learning.

In the 1990 U.N. Convention on the Rights of the Child, it mandates that children must be educated in a language that they use to interact with their family at home.

However, the use of the mother tongue as a medium of instruction was not instituted for several decades in the Philippines as various language policies had been passed prioritizing the use of English and Filipino.

One was the Philippine Bilingual Education Policy (BEP) defined operationally as the separate use of Filipino and English as media of instruction in specific subject areas.

Another was former President Arroyo's Executive Order 210, "Establishing the Policy to Strengthen the Use of the English Language as a Medium of Instruction in the Educational System" in 2003. The declaration was designed to increase the

employment of fresh graduates in the Call Center industry or Business Process Outsourcing (BPOs) industry.

Despite the language policies prioritizing English, there were several attempts to use the mother tongue in the Philippine Education System. One was Republic Act 8980, otherwise known as the Early Childhood Care and Development (ECCD) Act of 2000. The Act provides a clear policy on children's development from conception to age six regardless of their individual needs and socio-cultural background. It mandates that the child's first language is the medium of instruction (ECCD Act, 2000).

Another one was Department of Education (DepEd) Order No. 74, s. 2009, known as, "Institutionalizing Mother Tongue-based Multilingual Education (MLE)." This was the second significant milestone recorded in favor of the mother tongue. The first one was in 1957 when the Revised Philippine Education Program, based on a UNESCO research, implemented the use of the local languages for Grades 1 and 2 while English was taught as a subject.

By 2013, Republic Act No. 10533 or "An Act Enhancing the Philippine Basic Education System by strengthening its Curriculum and Increasing the Number of Years for Basic Education, Appropriating Funds Therefor and for Other Purposes," was passed. It specifically mandates the use of the mother tongue (MT) as the medium of instruction (MOI) from Kindergarten to Grade 3, aside from being taught as a subject from Grades 1 to 3. After Grade 3, only English and Filipino are to be used, which are already part of the learning areas from Grade 1 to Grade 10.

With these developments on the implementation of the MTB-MLE policy nationwide, research studies and other forms of feedback coming from various areas and sectors are expected to improve the country's language policy in schools. Consequently, it is also expected to improve the learning experience of the students and their academic performance.

The Education For All (EFA) Global Monitoring Report 2005 states that mother tongue-based bilingual education not only increases access to skills but also raises the quality of basic education through classroom interaction and integration of students' background knowledge and experiences to what they are currently learning.

Language and Armed Conflict

In a UNESCO analytical review on mother tongue-based bilingual or multilingual education in the early years, Ball (2010) recommends that the linguistic rights of the minority groups in learning be recognized.

The said review underscores the fact that language is a fundamental attribute of cultural identity and empowerment aside from helping ensure peaceful cohabitation among the peoples. At the same time, linguistic rights must be recognized in situations of political change and evolution.

Boyden and Ryder (1996) note that in areas of armed conflict, the learners' first language should be used and learning takes place through active participation in

discussions and debates, group work, individual project work and experiential work. With this approach, children are allowed to practice and learn on their own terms, using their own language, concepts and understandings, thereby building their confidence. Creativity through role-play and drama are encouraged. By drawing on the pupil's personal experience and applying the acquired knowledge and skills to practical situations, full reinforcement is given to the learning process as a tool useful and relevant in all aspects of life.

Smith (2010) in his background paper for EFA 2011 Global Report identifies education as either “a driver of conflict or a contributor towards conflict transformation and peace building.” In his paper, he notes that there must be appropriate curriculum content, pedagogy and learning resources to build peace. This means that the type of curriculum must be responsive to the needs of society instead of using it to promote particular political ideologies, religious practices or cultural values and traditions.

In the case of the Autonomous Region of Muslim Mindanao (ARMM) where the current school for the case study is located, no less than the former President Benigno Aquino III identified in his Ten-Point Education Agenda the importance of *madaris* education in order to “make the full basic EFA available to all Muslim Filipino children anywhere in the country” (EFA 2015 National Review Report: Philippine, 2015). The *madaris* recognize the linguistic and cultural heritage of the Muslims and give them full access to education that is contextualized to their beliefs, language and culture.

Based on the qualitative and comparative study of Fabris (2011) in two Mindanao schools, it points out that when schools neglect the minorities' histories and languages, it has the two-fold outcome of either frustrating minority identities or promulgating social biases and intolerance on the other. Using social constructivism, Fabris concludes that as societal tensions increase due to lack of recognition of one's history and language, conflict would develop and allow groups to de-legitimize or dehumanize one another.

Thus, in the implementation of MTB-MLE and integration of peace education using the mother tongue, there must be an interaction between the national level and the local level. Otherwise, the language policy will not be successfully implemented as shown in a study by Burton (2013).

The said study points out that despite the implementation of the language policy and the teachers' compliance in using the mother tongue, both teachers and parents still believe that English is more important than the Bicol language due to its global status and economic value. The study concludes that a singular top-down approach to MTB-MLE is ineffective unless local knowledge and stakeholders such as parents and teachers in the area are included in the decision-making and implementation of the language policy.

Conceptual Framework

For this study, a modified version of Hornberger and Ricento's a layered “onion” in language planning and policy is utilized.

Like an onion, language planning and policy have several layers with the outermost part represented by broad language policy objectives enacted by legislative or executive bodies at the national level. The next layer is represented by institutions, agencies, business or government offices that interpret the policy for dissemination to the next level, which is the core of the onion. It is expected that as the policy goes down to the core, “it could be interpreted and modified as individuals from diverse backgrounds, experiences and communities interact with each other.” (Hornberger & Ricento, 1996).

What makes the “onion model” applicable to this current study is that there is an assumption that the different “layers of the onion” would affect each other. Thus, from outside to inside of the onion, the actors representing each layer would interact with each other. This aptly describes the “top-down” and “bottom-up” approach in implementing a successful MTB-MLE policy.

The “bottom-up” approach is intended to gather feedback from the main implementers and in some cases help “revitalize threatened and non-dominant languages in language planning and policy” (Hornberger and Ricento, 1996). On the other hand, the “top-down” approach allows the national level to operationalize the policy through executive orders, legislations, guidelines, and regulations.

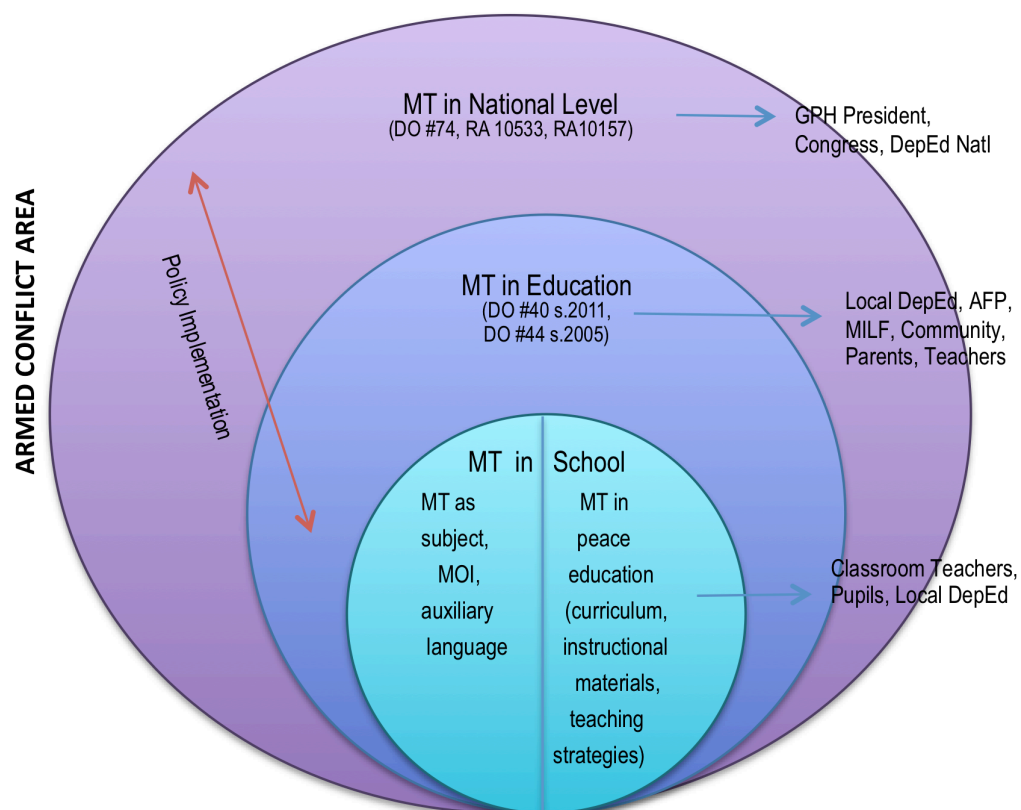


Figure 1. Conceptual Framework on MTB-MLE policy implementation using the “top-down” and “bottom-up” approaches

Methodology

The present study utilized the qualitative approach as it is flexible and the research design comes out based on the real world as the research moves on (Robson, 2011).

Moreover, the study made use of social constructionism in the analysis and interpretation of data considering the topic and respondents. According to Schwandt (2003), in social constructionism, concepts, models, and schemes are created to make sense of experience, and to test it continuously then later modify these constructions based on new experience where there are shared understandings, practices, and languages.

As a qualitative research, the Instrumental Case Study Design was used “... to accomplish something other than understanding a particular situation. It provides insight into an issue or helps refine a theory” (Stake in Baxter & Jack, 2008: 149). This design was deemed appropriate because the case is “often looked in depth, its contexts scrutinized, its ordinary activities detailed, and it helps the researcher pursue the external interest,” (Stake in Baxter & Jack, 2008: 149). The case study design also allowed the integration of the quantitative survey data generated from a survey questionnaire given to teachers to improve data credibility.

The location of the case study was chosen based on the following criteria. First, the area must be considered by the Armed Forces of the Philippines (AFP) to have armed conflict. In this case, the presence of Moro Islamic Liberation Front (MILF) and Bangsamoro Islamic Freedom Fighters (BIFF) in the area and existence of violence involving local politicians, rebels, and government troops has reached a minimum level of intensity, thus, the locale met the first criterion. Second, the school included in the case study should have been implementing the MTB-MLE program since its inception, and third is that the major composition of the student population should be Muslims.

The participants in the case study were the students, teachers, parents, school officials, local education officials, and a local high-ranking AFP officer in charge of the Maguindanao area.

In conducting the research, classroom observations, archival research, analysis of instructional materials, tools and interview schedules for Key Informant Interviews (KIIs) and Focus Group Discussions (FGDs) were used. Due to the absence of a similar study, tools were designed based on previous studies on MTB-MLE implementation. A survey questionnaire that was validated in another school located in an area of armed conflict was also used.

Discussion

The intent of this case study was to examine the implementation of the Mother Tongue-Based Multilingual Education in an area of armed conflict. It specifically answered the following questions: 1) How is MTB-MLE implemented in an area of armed conflict in terms of the use of mother tongue as subject, medium of instruction,

and auxiliary language; 2) How is the mother tongue integrated in peace education in an area of armed conflict particularly in the curriculum, instructional materials, and teaching strategies.

The result for the first question reveals that the teachers observed during the Mother Tongue subject use Maguindanaon in discussing the lesson. However, their familiarity and ease in implementing the bilingual policy for over a long period of time made them resort to the Filipino language even during the Mother Tongue subject. The lack of curriculum guides, instructional materials and trainings are among the challenges encountered by the lower primary teachers.

On the use of Maguindanaon as medium of instruction in Math, Araling Panlipunan and Arabic Language and Islamic Values Education (ALIVE) classes, results of the class observations, interviews and FGDs reveal that teachers would still regularly switch to Filipino when explaining the lessons. English is also used in some instances for convenience and spontaneity of discussion in the classroom. The teachers have identified familiarity and ease in code switching between Maguindanao, Filipino and English as a reason for the continued use of the other languages in their classes. Unlike the apparent willingness of the teachers and students in using Maguindanaon as medium of instruction despite the challenges they have encountered, parents have strongly expressed their resistance to the new language policy. Their apprehensions toward the MTB-MLE outweigh their feeling of pride that Maguindanaon is used as medium of instruction. For them, the old bilingual policy would make their children at par with graduates from other schools.

Meanwhile, Maguindanaon as an auxiliary language has not been established in the study as teachers, students and school officials consider Filipino as the auxiliary language. In the presence of Muslim and non-Muslims, speakers would automatically use Filipino language in order to communicate.

For the second question, the study has explored how Maguindanaon integrates peace education in their school curriculum and ALIVE curriculum. Results of class observations, interviews and FGDs show that the school indirectly and informally integrates peace education using Maguindanaon through the teaching of values education in various learning areas inside and outside the classroom. Although there was no direct and formal mention of peace, unity and harmony in the lessons observed, emphasis was given on how students should behave in the school, at home and in their community.

In answering the question on the use of Maguindanaon in peace education particularly in the instructional materials, the other textbooks and references analyzed do not directly contain any integration of peace education, but were focused on values formation and the Arabic Language. These instructional materials were in Arabic and English and the *ustadz* translated the terms and concepts to Maguindanaon language.

The last question explored how Maguindanaon is integrated in peace education through the teaching strategies. Results of the class observation and interview reveal that the teaching strategies are very limited. In one of the classes observed during the math class, the teacher used story telling to inculcate values education, while the ALIVE teacher depended a lot on the translation method and experiential learning. It

is possible though that as very limited classes have been observed, there could be more teaching strategies in informally integrating peace education in the lessons with the use of Maguindanaon language in other classes.

Conclusions

Results from this study suggest that the implementation of a national policy requires a “top-down and “bottom-up” approach. As illustrated by the problems encountered by the teachers such as lack of curriculum guides and lack of training, there should have been local consultations and trainings conducted by the national and regional levels. After all, the process of conceptualization, planning, and preparation are activities that have to be shared at all levels prior to the implementation of a policy.

As posited by Ricento and Hornberger (1996) in the onion model, there are interactions and negotiations within and between levels in order for a policy to be successfully implemented.

The succeeding conclusions are based on the results of this study.

First, the teachers identified lack of training, curriculum guides and instructional materials as factors that hinder the successful implementation of the MTB-MLE program. Class observations, interviews, focus group discussions, and analysis of instructional materials support the claims of the school officials and teachers. The lack of preparation in terms of conducting training, development of curriculum guides and instructional materials prior to the implementation of MTB-MLE nationwide placed the local schools and teachers in a daily struggle. Even the use of the local language, which is Maguindanaon, is not an assurance of immediate success in implementing MTB-MLE.

Due to the use of bilingual policy for several decades, both native speakers of Maguindanaon and non-native speakers such as the Christian teachers, face a challenging task of teaching Maguindanaon as a subject and using it as medium of instruction and auxiliary language. With regular training and development of curriculum guides and instructional materials, teachers could slowly adjust to the MTB-MLE program.

As pointed out by Burton (2013) in a case study on the implementation of MTB-MLE in the Philippines, there is a possibility of a misalignment on policy intentions between the local level and national level when teachers resort to mere translation due to lack of knowledge on pedagogical approaches and understanding of the rationale of MTB-MLE.

Second, teachers need additional support from the regional and national DepEd office in order to fully implement the MTB-MLE program. At the same time, the regional and national education offices should gather feedback from the local level in order for them to identify specifically what is needed to improve the program.

Third, although the school for this study is faced with the challenge of being located in an area of armed conflict, the ideals and plans in integrating peace education using Maguindanaon by the school officials, teachers, parents, and other stakeholders are yet to be implemented.

Laws and policies like the Muslim Mindanao Act. 303 s. 2012, which enhances the Basic Education Act in ARMM and the 2006 Road Map for Upgrading Muslim Basic Education are clear indications of the national and regional governments' intention to infuse peace education in the curriculum.

Thus, the national and regional education offices should actively and faithfully implement these laws and policies on peace education. Local school officials, teachers and other stakeholders should also take the initiative to integrate peace education in the curriculum and take advantage of using the mother tongue in integrating peace education in the different class subjects.

In the process of implementation, feedback on training and financial support for the integration of peace education vis-à-vis MTB-MLE implementation could be brought up to the national level that comprised of the GPH President, Congress and national DepEd Office. This would give legislators a clear and realistic picture of the current situation of peace education and MTB-MLE in a school located in an area of armed conflict.

Fourth, the harmonious co-existence in Maguindanao of Muslims, Christians and indigenous people despite their different beliefs and culture could be fully achieved through the use of a common language that all parties could understand.

Teachers, school officials and an AFP official pointed out during the Key Informant Interviews (KIIs) that while Maguindanaon language could help in peace education, a language common to all is needed to avoid misunderstanding and conflict. In the case of Maguindanao, the Filipino language could serve this purpose because of the existence of different languages such as Maguindanaon, Ilocano, Ilonggo, and Bisaya.

Tupas (2011) noted that Filipino as the national language has become the country's "inter-national lingua franca." This means that among the peoples from different tribes and ethnicity residing in Maguindanao, Filipino has become a common language for all.

Fifth, Teacher Education Institutions (TEIs) need to improve their pre-teacher training to fully prepare future teachers who will be deployed in areas of armed conflict. Topics on MTB-MLE and peace education should be included comprehensively in the pre-teacher training.

Sixth, the curriculum and teaching resources provided by curriculum developers and instructional material writers were not contextualized to the local setting. It would also be beneficial if a Maguindanaon dictionary is developed and provided to the teachers. In the light of the implementation of the rationalization plan, there should be a more conscious effort on the part of the regional education office to implement the integration of peace education at the primary level where the mother tongue is taught as a subject and used as medium of instruction. A Peace Education Teaching Exemplar using the mother tongue should also be provided considering that the school is located in an area of armed conflict.

Finally, studying the implementation of MTB-MLE in one of the areas of conflict is not enough, as this only presents a single snapshot of how a national policy is carried

out down to the school level by teachers, who have inadequate training, curriculum guides, textbooks, and teaching resources. Thus, it is recommended that a similar study be conducted in other ARMM areas besieged with conflict over a longer period of time. This will give readers a broader and a comprehensive discussion on the implementation of the mother tongue policy.

Furthermore, as local education officials, teachers and parents are currently adjusting to the new language policy, it will be interesting and significant to repeat the same case study on how MTB-MLE is implemented after three years. This will offer readers a new level of understanding how the implementation of MTB-MLE has evolved through the years. The study will focus on how MTB-MLE is implemented in an area of armed conflict in terms of the use of mother tongue as medium of instruction/ language of instruction; subject; and auxiliary language. It should further delve into the use of mother tongue in peace education in an area of armed conflict particularly in the curriculum; instructional materials; and strategies.

By studying the implementation of MTB-MLE in different areas of the country especially those outside the city, the national government will have a bigger picture of the benefits of MTB-MLE and strengthen whatever weaknesses will be gathered from the main implementers – the teachers.

The logo for the International Association of Teachers (iafor) is centered on the page. It features the word "iafor" in a light blue, lowercase, sans-serif font. The text is surrounded by two large, thin, curved lines that form a partial circle, one in a light blue color and the other in a light red color.

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***Melodious Sound of Saw Sam Sai:
Recording, Analytical Program Notes and Music Notation***

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Abstract

Saw sam-sai (Three strings-fiddle), a traditional instrument of Thailand, has an extraordinary appearance as well as a remarkable sound. Its construction process requires distinctive materials and a thorough method of craftsmanship. *Saw sam-sai* has its role in the royal court, serving in the royal ceremonies since the ancient times. Later, its role has expanded to a solo instrument. According to the roles and a long heritage of *Saw sam-sai*, the research aims to create a recording of significant repertoires functioning in the prominent ceremonies for the purpose of preservation. The repertoire selected for recording are drawn from both the royal court and aristocracy repertoires. The recording procedure was done professionally with sound recording experts. The soloist for this recording is the researcher, who has inherited the traditional performance practice of *Saw sam-sai*. Accompanying the recording are music scores in western notation that are transcriptions of the performance and a book, *Seang sa-nau saw sam-sai*, and its English translation. The book provides the history and background of *Saw sam-sai* in Thailand and the analysis of the repertoires. The result of the research and its performance has been presented in an academic conference to make the heritage of *Saw sam-sai* known to the public. Moreover, for the benefit of worldwide access, this research is also publicized through *YouTube* and *Dailymotion*. Through this research, Thai musical heritage has been made known internationally. Furthermore, it can serve as a model for other researchers who are masters of other Thai musical instruments for the preservation of the Thai national treasure.

Keywords: Thai traditional music, Thai Traditional song, Siamese fiddle, Saw sam sai, Thai performance, Melodious Sound of Saw, Pongsilp Arunrat

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Introduction

The inheritance of performance practices of present day *saw sam-sai* can be traced back to the reign of King Rama II (Buddha Loetla Nabhalai), spanning eight generations altogether. The legacy of *saw sam-sai* has been inherited among 2 disciplines: the royal discipline and the aristocratic school. Both have mastered *Saw sam-sai* and claimed their expertise and distinction of their practices, having their own collection of solo repertoire. Eventually the two disciplines could unite to share their heritages with each other. Although some of their practices have been lost, the significant repertoires survive.

For the royal discipline, the art of learning *saw sam-sai* began in the reign of King Rama II, considered the golden age of arts. The king, himself a *saw sam-sai* master, had laid the standard of the instrument by adjusting its shape to project better sound quality. In the court, the *saw sam-sai* musicians are all female. They were charged with two duties: performing for important ceremonies, such as *Khun-phra-u*, and performing at the King's chamber.

The *Khab-mai* ensemble, comprised of a singer, a *saw sam-sai* player, and a *ban-dau* drum, played for the significant ceremonies. They performed *Cha-look-luang* repertoire. The musicians who performed in this ceremony were from the caste of Brahmin. The repertoire is varied in each ceremony, for example *Tad* repertoire is assigned in the *Song-krueang-yai* ceremony (cutting the hair). As to the repertoire, even though several songs were mentioned, only two songs, *Khab-mai* and *Kra-bong-kan*, survive. Musicians for this ceremony are courtiers in charge of royal ceremonial dresses and hats.

The second type of ensemble, blended *saw sam-sai* with *Mahori Luang* (royal) ensemble, comprises a singer, a *saw sam-sai* player, *kra-jab pii*, *klui rong-oo*, and *tab*. This ensemble was developed since the Ayutthaya period and continues to the present. Musicians of this ensemble are usually concubines and courtly ladies. They perform the Mahori music telling the stories drawn from popular literature. Popular Mahori songs are "Nang Nak," "Padcha," "Phra-thong," and "Kham-wan."

After the reign of King Rama III, *sepha* music became a new trend circulating at the court. Many *sepha* songs were composed and sung in alternation with *Kab sepha*, accompanied by *Pii-phaat sepha* ensemble. In addition to *sepha* composition, a new composition technique of augmentation was invented, creating a melodic expansion in longer note durations, resulting in slower rhythm than *song chan* composition. This type of composition is called *sam chan* composition. Some of the *Sepha* songs, such as *Nok-khamin*, *Phaya soak*, *Saratee* and *Kake-mon*, were developed for a solo repertoire of several instruments. This type of solo composition is called *Pleng deo* (solo).

The trend of *Sepha* and *Pleng deo* composition was diffused all over the royal court. As a consequence, Thai music masters from the other discipline of aristocracy stepped into the court. Among the Thai music masters from this discipline were **Phra Pradit phairoh (Mee Dhuriyangkul)**, who mastered *Pii nai* (folk oboe) and *Saw sam-sai*. There is no evidence to verify his teacher; however, for his position, he was appointed as Thai *Pii-phaat* teacher for King Pin-klao's ensemble and for the ensemble of

Somdej Chao Phya Borom Maha Sri Suriyawongse (Chuang Bunnag). He also composed several *Sepha* repertoires as well as *pleng deo* that derived from *sepha* songs, for example “**Kaek-mon.**” As for the original solo compositions, his most remarkable piece is “**Tayoi Diew.**”

When solo music performance became popular at the court, *saw sam-sai* as a courtly instrument music had to adjust to the new trend. As such, were Phra Pradit phairoh who was in charge of teaching *sepha* music for Mahori ensemble, also had to compose solo repertoire for *Saw sam-sai*.

Hence, to be selected as courtly ladies, the skill of *saw sam-sai* was in demand. For example, **Chao Jom Prakong**, a daughter to **Phraya Dhamasarnitipitpakdee (Tad Amatyakul, 1773-1888)**, was also a *saw sam-sai* student of were Phra Praditphairoh. She was one of the ladies who mastered in the instrument before being appointed as the royal concubine to King Rama V. Later, she inherited the knowledge of *saw sam-sai* to **Phraya Amatyapongthampisarn (Prasong Amatyakul, 1883-1952)**, her nephew. Likewise, most of the ladies who could perform *saw sam-sai* were all wives of significant noblemen, including Mom Sud and Mom Piew, etc.

During the reign of King Rama III to Rama IV, **Mom Sud Bunnag** (unknown birth and death date), wife to Somdej Chao Phya Borom Maha Sri Suriyawongse (Chuang Bunnag) had possessed an excellent skill in performing *saw sam-sai*. She had advanced her talent while studying with Phra Praditphairoh. and developed her skill at the palace of Somdej Chaophraya. One spectacular lesson she acquired from Phra Praditphairoh. was the “*Tayoi Diew*” and “*Chednork.*” Later on, she passed these two songs to **Mom Piew**, a concubine to Phraya Noraratrachamanit (To Manityakul).

Mom Piew was a *saw sam-sai* master at the court of King Rama IV-V. Even though, she was not a courtly lady since she had resigned from the court for her marriage, her expertise in the instrument had made her well-known and was requested to continue teaching *saw sam-sai* to the ladies at the court. Similar to Mom Sud, Mom Piew had inherited “*Tayoi Diew*” song to Chao Thep Kanya Buranaphim.

Chao Thep Kanya Buranaphim (1880-1962), was the ninth daughter of Chao UttrakarnKosol (Chao Noi Thepwong) and Chao Mae Kham aiey. At the age of twelve, she came to the royal grand palace with Chao Jom mada Thipkesorn where she had her education along with music study at Chao-Lao palace of Praratchachaya Chao Dararassami. Through *saw sam-sai* and music lesson with Mom Piew and **Phraya Prasarn duriyasap** (Plak Prasarnsap, 1860-1924) who studied with **Tuek Duriyangkul**, a son of Phra Praditphairoh. Chao Thep Kanya became an excellent *saw sam-sai* player, a leader of Mahori ensemble, and teacher to several princes and princessess. Among her students was Prince Paribatra , a son to King Rama V. Later on, Phraya Prasarn duriyasap sent Praya Bhumeesevin, (Jit Jitrasevi) to study with Chao Thep Kanya for 9 years. He, then had acquired all the repertoires.

Praya Bhumeesevin, (Jit Jitrasevi, 1894-1976), a son of Luang Kontapvati (Chang) and Thiab, studied *Saw-duang* (two-string fiddle) from his father before becoming a royal page in the Pii-phaat ensemble of King Rama VI (during the time he was a crown prince). At the court, he was a student of Phraya Prasarn duriyasap, a Pii-phaat

master and had studied klui and kong-wong-lek with Phraya Prasarn. After King Rama VI ascended to the throne, he was appointed as a supervisor and was conferred the title of Phraya Pumeesevin in 1925.

Praya Bhumeesevin had his saw sam-sai lessons in courtly style with Chao Thep Kanya with additional guidance for saw sam-sai repertoires from Phraya Prasarn duriyasap. Additionally, he studied for more special techniques such as “new chang” and bowing from Chao Jom Prakong. Besides pursuing expertise in Thai music Praya Bhumeesevin also studied violin with Phra Chen Duriyank (Piti Vatayakorn). Throughout the knowledge he acquired from his study, he intellectually invented a standard form of bowing and techniques, fingering, and systemized saw sam-sai education from beginning to advanced. His method has been called ‘**School of Phraya Bhumeesevin**,’ an excellent source for saw sam-sai music and learning. Many renown students of his school are Khru Tuean Patayakul, Khru Charoenjai Sunthonvathin, Professor Dr. Utit Narksawad, Khru Chalerm Muangpraesri, and Khru Siripan Palakawongse na Ayutthaya, etc. Among his students, Professor Udom Arunrat (1935-2006) is the only disciple who inherited all the saw sam-sai repertoires from him.

Professor Udom Arunrat was a son of Champii and Tham Arunrat. Professor Udom had his Bachelor of Education, majoring in Secondary School Education, from the College of Education (Srinakharinwirot University) in 1966 and received an Honorary Doctorate degree (Music) from Mahidol University in 2003.

He started learning Klui from his father. During the years 1946-1956, he had Jakee lessons with Khru Rueang Kasemsuk (unknown birth and death date), a well-known strings teacher at the Ayutthaya province. He became involved with *saw sam-sai* when he studied with Praya Bhumeesevin. Appreciating his student’s talent and effort, Phraya Pumeesevin passed down all his *saw sam-sai* knowledge both, the techniques and the repertoires, to Professor Udom. Furthermore, he continued studying with **Pavas Bunnag (1924-1994)**, the former Vice Principal Private Secretary, the Office of His Majesty’s Principal Private Secretary. His teacher, Ajarn Pavas had his *saw sam-sai* study from Khru **Tevaprasit Patayakosol (1907-1973)**, whom had inherited another discipline of saw sam-sai from **Phraya Amatyapong thampisarn (Prasong Amatyakul)**. Through this study, Professor Udom had acquired new repertoires including “*Surindrah*,” “*Kaek Mon*,” and “*Krabongkan*.” With all of the saw sam-sai heritages from both disciplines and from generation to generation, Prof. Udom had become one of the most respected and the best saw sam-sai musician in the realm of Thai music.

Having devoted his life to educate the younger generation about Thai music, Professor Udom became a faculty member of the Department of Dramatic Arts, Faculty of Arts, Silpakorn University. He created a great number of valuable publications and was appointed Professor of Thai Traditional Music in 1994, considered to be the first professor of Thai Music under the Office of Higher Education of Thailand. After his retirement, he was invited as a Thai music expert to join the Thai music faculty at the College of Music, Mahidol University. There, he was charged with both lecture and performance classes in all levels from undergraduate to graduate programs.

With the mind to develop and create new art, he composed a number of solo repertoires for *saw sam-sai* from fundamental to advanced pieces, for example; “*Mon plang*,” “*Chorakae Hangyao*,” “*Tuangpratart*,” “*Khamen Pikeaw (Sakrawa)*,” “*Phraya rampueng*,” “*Sud Sa-nguan*,” “*Chandrah*,” “*Lao Kaen*,” and “*Ramajitti Ramluek*.” His efforts have strengthened Thai music education and made the name of his school notable in Thailand. Among his students, several are outstanding music teachers, including Professor Dr. Natchar Panchareon, Boontuan Sriworapoj, Suporn Chanapantu, and **Professor Pongsilp Arunrat**, his only son whom has inherited all the repertoires

Project: The Recording of “*Seang Sanoh saw sam-sai*”

The purpose of recording “Melodious Sound of Saw Sam Sai or *Seang Sanoh saw sam-sai*” is to preserve national heritage with the objective of collecting all the *saw sam-sai* repertoires. The repertoires can be classified into 4 categories.

1. Repertoire for the royal ceremony

Repertoire for the royal ceremony comprises of songs that functioned in the royal ceremonies since the ancient time. In this repertoire, *saw sam-sai* is performed together with the *ban-dau*, a hand drum designated only for use in the royal ceremony.

Tad repertoire, the most prominent repertoire for royal ceremony is functioned. At present, most of the songs in *Tad* repertoire have been lost, except 2 pieces: “Kubmai” and “Krabongkan.” In addition to these, an important piece, “cha look luang.” is used in the Khun phra-u ceremony. Three more significant songs are also included such as “Pra-satwai,” with “Kubmai,” and “Krabongkan,” “Chalukluang,” with “Orachorn.”

2. Solo *saw sam-sai* repertoire for fundamental level

The pieces for *Saw sam-sai* beginners comprise of *song-chan* and *sam-chan* repertoires. Even though, the fundamental pieces have uncomplicated melodies and are rather simple to play, having clear fingering function, and practical bowing, to make beautiful music is not easy. A highly skillful performer is needed to create the beauty of sound. Nine pieces are selected for this fundamental level including “Monplang,” “Hokbot,” “Tonplengching,” “Chorakae Hangyao,” “Tuangphratart,” “Nok Khamin,” “Bulan loyluean,” “Buntomprai,” and “Khamen Pikeaw (Sakrawa).”

3. Solo *saw sam-sai* repertoire for intermediate level

The intermediate repertoire is for the student who has efficiently passed the fundamental training. Music in this category is mainly in slow tempo of *sam-chan* rhythm; therefore, they are longer in duration compared to the fundamental pieces. More advance techniques are used in term of fingering, bowing, and interpreting emotional expression of the piece. Ten intermediate pieces are drawn from both the royal court and the aristocratic disciplines: “Tayae,” “Platong,” “Sud Sa-nguan,” “Phaya Kruan,” “Phaya Soke,” “Phaya Rumpueng,” “Sansanoh,” “Chantarahu,” “Surindrah,” and “Kaekmon.”

4. Solo *saw sam-sai* repertoire for advance level

These are solo music pieces that require a high level of skill due to the difficulties in both bowing, and fingering. Generally, these repertoires contain Lao and Song-mai rhythmic pattern, as well as a free rhythm. Five pieces are selected, arranged according to their level of difficulty, which are “Lao Kaen,” “Ramajitti Ramluek,” “Thayoi Diew,” “Chednork,” and “Kraonai tao.” Phaya Bhumisevin specified that, if a player started learning “Thayoi Diew,” they must have a *Hwai Khru* ceremony (ceremony to pay respect to teachers). The students have to prepare the payment of one *chang* to the teacher. The purpose of this payment is to help the students understand that the Thayoi Diew is the supreme piece in the Thai literature and should not be modified or changed in a disrespectful way. After finishing “Thayoi Diew,” then the student can proceed to “Cherd nork” and “Kraonai.”

This spectacular recording has selected 15 prominent pieces from the royal court discipline and the Phraya Bhumeesevin discipline, along with 9 major pieces composed by Professor Udom Arunrat. Additionally, three pieces of the aristocratic discipline: “Krabong-kan,” “Surindrahu,” and “Kaekmon,” are included. These 27 pieces display Thai national heritage and can preserve the treasure of the nation.

It is characteristic of *Saw sam-sai* music to be performed twice, the first in a **Cantabile style**, called “tiew hwan.” This refers to an imitation of vocal style by using bowing and fingering to match the lyric. The bowing has to be done with exaggerated expression. The second repeat, called “tiew keb,” by contrast to the first, is performed with melodic variation. The nature of the variation is to create fast forward moving melody, which requires high skill techniques in bowing and fingering. Both “tiew hwan” and “tiew keb” have to be performed with additional percussion instruments of ching, tone, and ramana (except for “Pra-satwai,” with “Kubmai,” and “Krabongkan,” “Chalukluang,” the *ban-dau* is used instead of those percussion instrument). Only Ramajitti Ramluek is performed without percussion as the composer specified.

The analysis also provides keys to emotional expression, which could be varied in each repertoire. The analysis presents an intellectual research, providing new information to the realm of Thai music. This following liner note accompanying the recording could provide a new appreciation to *saw sam-sai* music.

Recording Studio



Music scores in western notation

กระบองกัณฑ์

เพลงหน้าพาทย์

หลวงกลัณณมิตดาวาส (ทับ) ประดิษฐ์ทางดนตรี

$\text{♩} = 60$

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18

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29 กลับต้น

พิมพ์ชนก สุวรรณธาดา ถอดเสียงและบันทึกโน้ต

พงษ์ศิลป์ อรุณรัตน์ เตียวขอสามสาย

Summary of the three disciplines for solo *saw sam-sai* repertoires

The analysis of the compositions in this recording project has provided valuable knowledge of *saw sam-sai*. Twenty-seven *saw sam-sai* works are selected; all contain their affiliation with the three major disciplines with clear explanation and classification of their roles and function in the royal ceremony, as well as their level of difficulty ranging from basic, to advanced. For the selection, fifteen compositions are drawn from the royal court and Phraya Phumeeevin disciplines; three compositions are from the aristocratic school; and nine are drawn from the works of Professor Udom Arunrat. The identical characteristics of each discipline could be summarized as follows.

The fifteen solo *saw sam-sai* compositions of Phraya Phumeeevin (Jitara Jittasevi) are all Thai repertoires that are not associated with foreign accent songs (*Pleng oak phasa*). His philosophy is to provide a strong fundamental *saw sam-sai* education to the students. He has inherited the composition styles from Phraya Prasarn duriyasap (Plak Prasarnsap). All of his works aim to improve the skill of students step-by-step by classifying the songs into repertoire for beginner, starting with a fundamental string repertoire, "*Ton pleng ching*" before moving forward to "*Hok bot*," which he had modified from Phraya Prasarn duriyasap's *thiew-keb* for *pii* (folk oboe). He also composed solo *saw sam-sai* for "*Bu-lan loi luean*" but blended it with the western style of "*San-tern suea paa*" in *thiew-keb* of the return sections with additional techniques of *neu rude* (which he called '*neu karn-baan*' for students to practice by themselves). His effort reveals his devotion in laying a foundation for *saw sam-sai* education for students to develop their skill and technique in a systematic way from basic level to advanced, similar to western education in instrumental performance. Realizing that many popular compositions, such as "*Nok kha-min*," "*Tha-yae*," "*Phaya kruean*," and "*Phaya soke*," were all modified for solo instruments, except "*Ban-thom phrai*," "*Pla-thong*," and "*Saen sa-nau*," which were not in the interest of the composers. For this reason, Phraya Phumeeevin modified these works for solo *saw sam-sai* to present differences from other composers who prefer creating their solo composition on popular songs, such as "*Su-rin tha-ra-huu*," "*Khaek morn*," and "*Sa-ra-thii*." He saw that these popular solo works were already masterpieces, therefore it was not necessary to create new ones to overthrow the great works. This concept was passed down to him by his teacher, Phraya Prasarn duriyasap, "If any compositions are already masterpiece works, there were no need to compose a new one to replace what are considered the best. Composers should honor the great masters and their works. Instead of composing new ones, they should encourage students to study the piece in-depth." Hence, he decided to create solo *saw sam-sai* for unknown works to avoid duplication of the existing compositions and to pay respect and honor to other *saw sam-sai* teachers. This attitude should be kept in the minds of all the Thai musicians.

For advanced solo *saw sam-sai* repertoires, including "*Tha-yoi deo*," "*Cherd no-ok*," and "*Krao-nai*," are all modified as solo repertoire for every instrument. Phraya Phumeeevin had inherited "*Tha-yoi deo*" and "*Cherd no-ok*" from Chao Thepkanya Buranaphim, whom derived it from a *saw sam-sai* master of the royal court, which is believed to be Phra Praditphirau (Mee Dhuriyangkul) when he was a *saw sam-sai* master at the royal court. As for the "*Krao-nai*" composition, he received it from Phraya Prasarn duriyasap. The composition has been regarded as the supreme

repertoire of *saw sam-sai*. It could be said that the identity of the solo *saw sam-sai* repertoires of Phraya Phumeesevin is to elevate the main repertoires (Thai repertoires or *Pleng sam-neang Thai*) to be the masterpieces of solo *saw sam-sai*.

The solo works from the aristocratic discipline which are derived from Khru Thevaprasi Patayakosol and have survived today, are 3 compositions: “*Kra-bong kan*,” “*Su-rin tha-ra-huu*,” and “*Khaek morn*.” “*Kra-bong kan*” is in the category of *Thad* repertoire similar to “*Khab-mai*” song, which are both compositions for royal ceremonies. The compositions were passed down from Luang Kanlayanamittavas (Chaokrom thab). The style is different from other “*Kra-bong kan*” that are usually performed by *Pii-phaat*. It is considered a significant treasure of the nation. “*Su-rin tha-ra-huu*” and “*Khaek morn*” are the works of Phraya Thammasarnnitiphipitphakdii (Tard Amatayakul). Both are regarded as splendid solo works of Morn-accented compositions (*sam-neang morn*) that have been passed down to Khru Thevaprasi Patayakosol and were among his favorite solo *saw sam-sai* pieces. Since these songs are popular, there are several versions circulating among Thai musicians, creating suspicion of their authenticity. The reassurance has been given by Ajarn Phavas Bunnag, who insisted that he is the one who received “*Su-rin tha-ra-huu*” and “*Khaek morn*” directly from Phraya Amatayapongthamphisarn (Prasong Amatayakul). Khru Theva prasi inherited *Morn* style in *thiew-hwan* on the last rhythm of the second section from Phraya Sanau Duriyank, then composed *thiew-keb* for both the first and the second section based on the *Pii-nai* composition that he derived from Phraya Prasarn duriyasap (Plak Prasarnsap). Ajarn Phavas was also another person who obtained the piece from Phraya Prasarn duriyasap.

As for Professor Udom Arunrat’s solo repertoire for *saw sam-sai*, nine pieces are drawn from *Morn* and *Lao* repertoires. The purpose in creating solo repertoires for *saw sam-sai* is to provide appropriate repertoires to meet the skill of all levels: beginner, intermediate, and advanced.

Professor Udom had seen that most of the solo pieces for *saw sam-sai* from the royal court discipline by Phraya Phumeesevin and the aristocratic discipline by Ajarn Phavas Bunnag are all masterpieces; however, they are too difficult for the new generation to learn the scholarship step-by-step. Therefore, he has assigned study repertoires to build up the skill from the basic level to the advanced one; that is, assigning “*Morn plang*” after learning “*Ton pleng ching*” and study “*Jo-ra-ke hang yao*” and “*Tuang phra-tat*” after finishing “*Morn plang*.” Also, “*Jo-ra-ke hang yao*” and “*Tuang phra-tat*” can blend with the collection of “*Ton pleng ching*” and “*Nok kha-min*” by Phraya Phumeesevin to complete the “*Tab Ton pleng ching*,” a standard repertoire for the basic level of string instruments. He also created “*Kha-men pii-kaew tang sa-ka-ra-wa*” for basic level of solo *saw sam-sai* and assigned “*Tha-yae*” and “*Pla-thong*” of Phraya Phumeesevin for the intermediate repertoire for *saw sam-sai*. He created “*Sud sa-nguan*,” a one-section composition in an intermediate level. Students at this level are required to manage the song before performing “*Phaya soke*” and “*Phaya kruean*” which are also one-section compositions and require a sliding technique (*neu rude*) as well as demanding a good ear. Besides “*Phaya kruean*” and “*Phaya soke*,” Professor Udom created a solo *saw sam-sai* version for “*Phaya ram-pueng*” to complete the collection of “*Tab Sam Phaya*,” one of the *Tab*s popular at Phraya Prasarn duriyasap’s school. After he had inherited solo repertoires of “*Su-rin tha-ra-huu*” and “*Khaek morn*” from Ajarn Phavas, he realized that both

songs bear a great deal of differences from the versions of Phraya Phumeesevin. Thus, he decided to create another solo work on “*Jan-ta-ra-huu*,” a paired-song with “*Su-rin tha-ra-huu*,” and required students to master the song to adjust their level before starting to learn “*Su-rin tha-ra-huu*.” He had set “*Su-rin tha-ra-huu*” as a model in creating “*Jan-ta-ra-huu*.” When students have finished learning “*Jan-ta-ra-huu*,” they can manage “*Su-rin tha-ra-huu*,” and “*Khaek morn*” without any problem.

The advanced repertoires for solo saw sam-sai comprises three compositions: “*Tha-yoi deo*,” “*Cherd no-ok*,” and “*Krao nai*.” Professor Udom proposed more repertoires to be added in this level; therefore, he created a solo saw sam-sai piece on “*Lao kaen*”. He invented new techniques of saw sam-sai in this song. When students have completed learning “*Lao kaen*,” “*Ram jit-ti ram-ruek*” is placed as the next composition.

He also adopted “*Sa-thu-karn*” *chan deo* as the response in solo works. This composition is very special since it has no rhythmic pattern accompanying. The style of this song is similar to “*Tha-yoi deo*,” so when students finish “*Lao kaen*,” they can continue with “*Tha-yoi deo*.” Moreover, he had added “*Ched nai*” at the end of the “*Ched nok*” composition, increasing it by 3 figures, added to the original 2 to complete 5 figures, similar to the tradition of *Khone Nang loi* that ended with *Ched-nai*. In summary, the solo repertoire for saw sam-sai of Professor Udom is the integration of both the royal court discipline and aristocratic discipline in order to provide a full contribution of saw sam-sai for the benefit of the new generation. Thus, his method is still in practice today.

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Classroom Climate: Implications to Students' Academic Achievement

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Abstract

This descriptive-correlational study determined the relationship between classroom climate and student's academic achievement measured in terms of their general average grade in all general education subjects. Purposively sampled students from the different programs of Lourdes College participated in the study. Data were gathered using a questionnaire subjected to exploratory factor analysis to establish its validity and reliability. The data were processed using descriptive and inferential statistics. Findings reveal that the classroom climate of the school was perceived to be highly conducive to learning. Generally, the students had a good academic achievement. Statistical results indicate a significant relationship between classroom climate and students' academic achievement. That is, classroom climate greatly contributes to the academic success of students. Therefore, the school should continue providing students with favorable learning environment with emphasis on differentiation.

Keywords: Classroom climate, academic achievement, physiological climate, physical climate,

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Introduction

Learning can take place everywhere. However, the classroom still remains to be the main learning environment in school. It is a place where teachers and students interact intellectually, emotionally, and socially using a variety of tools, information, and resources in the pursuit of knowledge. Hence, it is very important for teachers to create a positive classroom climate that truly promotes learning (Falsario et.al., 2014; Bilbao et al., 2012).

The nature of the classroom environment and psychosocial interactions can make a difference on how students learn and achieve their goals (McRobbie et.al., 1993). A classroom that radiates an effective learning environment makes learners acquire more positive attitudes and basic skills that can be applied throughout their lives (Acero et al., 2015). Thus, quality classroom climate must be in place to influence learning positively.

Lourdes College, among the many schools in Cagayan de Oro City that provide quality education, makes it a priority the creation of a classroom climate that facilitates meaningful learning among students. However, if such climate has facilitated learning remains to be seen, hence the need to conduct this study. Results of this study may lead to the identification of interventions that will further enhance classroom climate.

Framework

This study is anchored on the Environmentalist Learning Theory by Albert Bandura (1986) and Lipoff (2011) with postulates that the environment shapes learner's behavior and learning and cultivates the minds of the students, as they interact with their surroundings. When environment encourages greater learning, the educational opportunities increase.

Ekpo (2009) cited Strivens' view that the effectiveness of classroom climate depends on its physical appearance, one which provides students with a task – oriented atmosphere and encourages social and emotional needs. This view implies that the classroom is the best venue for students to attain their full potentials academically. Teachers should continually strive to create a positive classroom climate in which student learning is maximized (Bilbo et al., 2012). Positive climate allows students to meet their basic needs whether physical, emotional or academic.

According to Fisher (2008), physical environment can affect students' comfort and also their ability to learn to some extent. Students who are comfortable are likely to get much information as compared to those who are uncomfortable. Besides, the physical atmosphere can also affect the morale of the learners. Unfavorable classroom environment can discourage the learners and they become less willing to learn (www.enotes.com). Physical environment plays a central role in any activity.

Classroom climate is a phenomenon consisting of interacting variables that influence learning. Samrat (2015) categorized classroom climate into the physical and physiological dimensions. This study focuses on the physiological climate. The

nature of the psychosocial interactions in the classroom can make a difference on how students learn and achieve their goals (McRobbie, et al, 1993)

Fraser (1990) pointed out the dimensions of classroom environment, namely cohesiveness, teacher support, involvement, task orientation, investigation, cooperation, equity, differentiation, computer usage, and young adult ethos. Nevertheless, among these dimensions, only teacher support, differentiation, cooperation, and teacher - student interaction were given emphasis in this present study.

Teacher support refers to the services and the trust extended to the students. Ryan and Deci (2000) noted that it is important for a classroom environment to provide optimal challenges for learning, where students feel that their teachers respect them, care about them, and provide support for their autonomy. Differentiation is the extent to which the teachers cater to students differently on the basis of ability, rates of learning, and interest. Cooperation refers to the extent to which students cooperate rather than compete with one another on learning tasks. Hannah (2013) emphasized in her study that teachers should create an atmosphere where students can work collaboratively and free to express their views without fear of judgment. Lastly, teacher - student interaction is the involvement of a student in discussion, performance in assigned tasks, and enjoyment in the class. Gammage (1982) wrote that teacher – student interaction during a lesson involves a consistent flow of information concerning their perceptions, expectations, attitudes and feelings about each other and the learning activities at hand.

Figure1 shows the framework of this study.

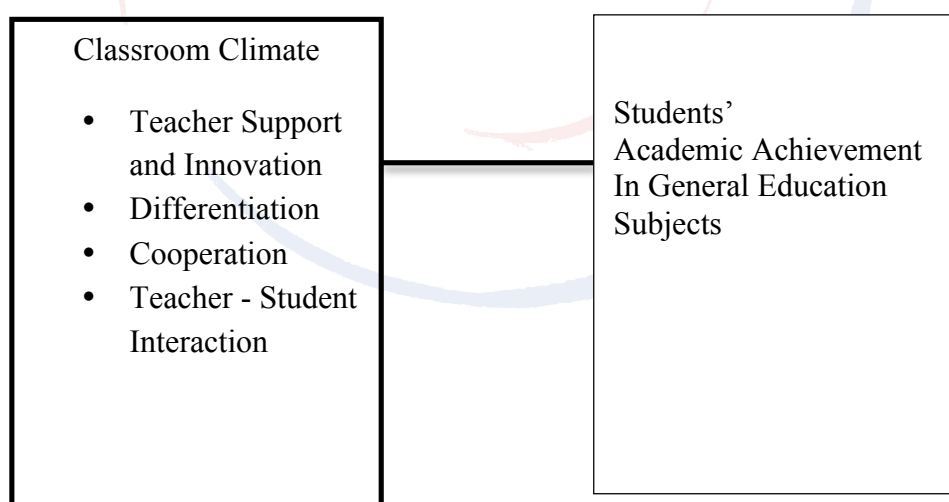


Figure1. Conceptual schema of the study

Objective of the Study

The school where this study is conducted provides quality education, and emphasizes the creation of a classroom climate that facilitates meaningful learning among students. However, whether such climate has indeed facilitated learning remains to be seen, hence the need to conduct this study. This study explored the quality of classroom climate in relation to the academic performance of college students of a private school in Cagayan de Oro City, Philippines during the Academic Year 2014-2015. Specifically, the study determined the 1) students' assessment of the quality of classroom climate, 2) the students' academic achievement; and 3) the relationship between these two variables.

Methods

This study used the descriptive – correlational research design. Five hundred students from different programs enrolled during the Academic Year 2014 – 2015 participated in the study. It used purposive sampling with the inclusive criterion of those who were enrolled in General Education subjects and grouped by discipline namely Humanities, Language, Social Sciences and Sciences. Data on classroom climate were gathered using the instrument of Fraser (1990), namely My Class Inventory (MCI), which was adapted and subjected to exploratory factor analysis to fit the Philippine setting. Descriptive and inferential statistics were used to organize the data.

Results and Discussion

On the quality of classroom climate, Table 1 shows that the participants rated the teacher support and innovation, cooperation, and teacher – student interaction as very highly evident; and differentiation as only highly evident. The overall mean of 3.52 indicates that the observance of a conducive classroom climate is very highly evident.

Table 1. Mean Distribution of Students' Assessment of Classroom Climate Factors

Classroom Climate Factors	M	SD	Description
Teacher's support and Innovation	3.81	0.32	Very Highly Evident
Differentiation	3.26	0.50	Highly Evident
Cooperation	3.52	0.48	Very Highly Evident
Teacher - Student Interaction	3.51	0.56	Very Highly Evident
Overall	3.52	0.47	Very Highly Evident

Legend: 3.51 – 4.0 (Very highly evident) 1.51 – 2.50 (Slightly evident)
 2.51 – 3.50 (Highly evident) 1.0 – 1.50 (Not evident)

Moreover, the table shows that the school climate factor with the highest mean is the teacher's support and innovation (M=3.81), which indicates that the instructors go out of their way to help them when they have problems with their work, and that they promote a caring, kind, and considerate relationship with their students. In factor differentiation, the participants indicated that their teachers employ varied learning activities; however, this indicator obtained the lowest mean (3.26). As to the participants' academic achievement, Table 2 reveals that generally a number of the participants manifested good (22.8%) and satisfactory (21%) academic achievement.

Table 2. Frequency and Percentage Distribution of the Students' Academic Achievement

Final Grade	Frequency	Percentage (%)	Description
1.0-1.24	10	2.0	Outstanding
1.25-1.49	40	8.0	Superior
1.50-1.74	90	18.0	Very Good
1.75-1.99	114	22.8	Good
2.0-2.24	105	21.0	Satisfactory
2.25-2.49	45	9.0	Slightly Satisfactory
2.5-2.74	50	10.0	Acceptable
2.75-2.99	35	7.0	Fair
3.0-3.49	6	1.2	Marginal
3.5-4.99	0	0.0	Conditional
5.0	5	1.0	Failed
Overall	500	100.0	

Table 3 shows the test of relationship between classroom climate and academic achievements using Pearson Product Moment Correlation coefficients. Results show that the components of classroom climate were significantly associated with their academic achievement except differentiation. This finding is in consonance with what Serviñas (2013) explained that an environment with positive climate characterized by harmonious relationship aids students to engage academically. Classrooms conducive to learning cater to the needs and interests of students, encourage creative thinking and eventually promote their academic achievement.

Table 3. Correlation of Classroom Climate and Students' Academic Achievement

Classroom Climate Academic Achievement	Pearson Correlation r	Correlation Coefficient	p - value	Remarks
Teacher's support and Innovation	-.142**	0.020	.003	Significant
Differentiation	.037	0.001	.412	Not Significant
Cooperation	-.141**	0.019	.002	Significant
Teacher – Student Interaction	-.119**	0.014	.008	Significant
Overall	-.095**	0.009	.034	Significant

** . Correlation is significant at the 0.05 level (2-tailed)

Differentiation was found to show no significant relationship with students' academic achievement. This finding is in line with what Marshall et.al. (2005) asserted that a caring relationship between teachers and students fosters a desire to learn among students.

Conclusion

The students in this school assessed the classroom climate of the school to be highly conducive to learning. That is, they experienced a nurturing and learning environment, which led them to perform well in class. Findings of this study provide evidence of the significant relationship between classroom climate and students' academic achievement. That is, classroom climate greatly contributes to the academic success of students. Moreover, a positive classroom climate effectuates meaningful learning that enables students to succeed in school. Therefore, it is important for the school to continue providing a favorable learning environment to the students, specifically on differentiation, by designing challenging activities tailored-fit to the students' needs, interest, and phases of learning.



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Applying Gamification in Vocational and Professional and Education and Training (VPET) Classroom to Engage Students' Learning

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Abstract

This paper aims to discuss the possibility of applying gamification in various classrooms in vocational education. The application of gamification in education has been explored in recent years. A number of research suggesting that incorporating game elements and game dynamics can enhance students' engagement and motivation by changing their role from being taught to active game players, and thus, breaking the boundaries of communication of traditional teaching and learning method. Vocational and professional education and training (VPET) is under rapid changes, students' learning style and needs are diverse, new teaching strategies are in high demand. The largest vocational and professional education and training provider in Hong Kong, Vocational Training Council (VTC), has been providing great strength in enhancing teaching and learning of various VPET programmes, so as to engage the new generations in acquiring three domains of learning, which are cognitive(knowledge), affective(attitude) and psychomotor(skills) domain as suggested by Bloom's Taxonomy (Bloom et al., 1956). Since the authors of this paper are Education Development Officers, who conduct class observation in various programmes. Some of the classes observed revealed the ways how gamification changes a knowledge-based lesson into an interactive classroom. It was also observed that how the teacher develops students' global vision and critical thinking skills through game-based instruction design. Moreover, one of the class also showed how game dynamics are used to teach practical skills. Last but not least, it will also discuss the constraints and challenges of applying gamification in VPET.

Keywords: Gamification, Motivation, Engagement, Learner Diversity, Game-based Instructional Design, VPET

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Introduction

The study is concerned with the application of Gamification in Vocational and Professional and Education and Training (VPET) classroom to engage students' learning, and in particular, how game elements and dynamics can be used to develop students in cognitive, affective and psychomotor domain. More specifically, it depicted the application of gamification for a knowledge-based subject, for teaching intangible concepts, and finally, for a complementary to practice hands-on skills in trade specific subjects. The study first looked at the relevant studies on the concepts of gamification in educational context. Followed by the explanation on implications to investigate how game elements, such as freedom to fail, rapid feedback, progression and storytelling could motivate students and promote learning. With the emphasis of the development of the skills, attitudes and knowledge of the learners in VPET, the paper would borrow the study of Bloom's taxonomy to select the cases in different domains. Class observation was conducted in the selected cases and it showed that using gamification in VPET had positive outcomes, including the increase in students' motivation and participation in attending theoretical lesson, and the acquisition of the intangible concepts, such as critical thinking skills and communication skills; and also the development of practical skills in trade specific subject. The paper further explored the possibility of the gamification in learning by discussing its challenges and constraints in VPET context.

Literature Review

This section highlights the literature relevant to the concept of gamification. To begin with, Karl Kapp (2013) asserts that "gamification is using game-based mechanics, aesthetics and game thinking to engage people, motivate action, promote learning, and solve problems." Game designer, Sebastian Deterding (2011) assert that games satisfy the innate need for intrinsic motivation and suggests to use game to redesign schooling and workplace training. He stresses the use of game-design elements in "non-game contexts" that further implies the application of gamification in contexts beyond games, it extends to education and business. Throughout the literature, it is generally claimed that gamification is the use of game elements, game dynamics, game mechanics to engage and motivate people in a non-game context. The applicability of gamification in education programmes and curricular planning to encourage specific behaviours and increase motivation and engagement has been studied and considered in recent years.

Different authors have put different emphases on what game elements are, such as challenge, fun, social connection, immediate feedback, narrative, collaborative problem solving, progress mechanics and music. In the study of "Gamification Revolution", Zichermann and Linder (2013) identify points, badges, prizes, and social reinforcement, onboarding, challenges, goals, and goals markers as the most important mechanics for gamification. Zichermann and Christopher Cunningham (2011) revealed in *Gamification by Design: Implementing Game Mechanics in Web and Mobile Apps*, point out points, levels, leaderboards, badge, challenges, quests, social engagement, customization, dashboards, feedback and reinforcement as key game mechanics.

Rajat Paharia (2013) suggests the five intrinsic motivations of games which are autonomy, mastery, purpose, progress and social interactions. Among them, Andrew Stott and Carman Neustaedter (2013) concluded four games elements, which are freedom to fail, rapid feedback, progression and storytelling. Huang and Soman (2013) had an in-depth study and defined a five part process for applying gamification to the instructional design of vocational education, which are “understanding audience and context, defining learning objectives, structuring the experience, identifying resources and finally, applying gamification.”. The study highlighted the importance of identifying the context in which gamification intends to be used.

A study by Xiang et al.(2014) showed that gamification helped student to learn better; and their learning experience and engagement had been improved. It is also said that students can make use of games to do revision as it makes the learning process more interesting. It is suggested that vocation training and education can leverage on gamification and make the curriculum more interesting so as to engaging students.

Case Studies

In Hong Kong, Vocational and professional education and training (VPET) (formerly called Vocational education and training (VET)) has received more attention in recent years. With its rebrand, VPET has been “covering programmes up to degree level with a high percentage of curriculums consisting of specialized contents in vocational skills and professional knowledge to better equip VPET learners with practical skills, attitudes and knowledge” (Lam and Ng, 2015). The following case studies depict the application of gamification and evaluate its possibility in VPET.

Cognitive Domain

The cognitive domain involves knowledge and the development of intellectual skills. This includes the recall or recognition of specific facts, procedural patterns, and concepts that serve in the development of intellectual abilities and skills (Bloom, 1956). The module we observed was “Pharmaceutical Product Regulation and Registration” of a Higher Diploma programme in the discipline of Applied Science (AS). The original teaching and learning materials were plain text without visual aids and be presented in PowerPoint slides. Teaching and learning strategies were mainly lectures and a few tutorials. The delivery of lectures were in traditional style, i.e. chalk and talk, thus students’ engagement was relatively low.

The module learning outcomes are: On completion of the module, students are expected to be able to: 1) explain the implication of the laws and regulations related to pharmaceutical product regulation to the pharmaceutical industry practitioners. 2) determine the registration classification of a pharmaceutical product in compliance with regulatory requirements in Hong Kong, mainland China and other representative countries and areas. 3) conduct technical review to ensure correctness and completeness of registration application materials.

As the learning contents include quite a large amount of contents mentioning law, ordinance and regulation related to pharmacy, which is regarded as a knowledge-based lesson. Gamified learning activities were used to arouse students’ learning motivation and increase their interests in the subject matter.

The teacher briefed the students the module learning outcomes, learning content and assessment tasks early in the first lesson. He also asked the students to form group as they would be working in groups for the group project and other learning and teaching activities. Some rapport building was made which help implement the gamified learning process later in the module.

In the second lesson, the students formed teams and participated in the gamified learning activity called “Register Your Product”. The scenario was in a pharmaceutical company. Players worked as an officer who is responsible to submit registration of the drugs produced by the company. Their mission was to complete the “Application Form for Registration for a Drug/Pharmaceutical Product/Substance”. The team who registered the product successfully could be the winner. This gamified learning activity used the game mechanics “mission” and challenge to engage the students. Moreover, game mechanism “collaboration” was included. As pointed out by many research that collaboration, challenge and mission are ones of the most frequently used game elements and game mechanics. Collaboration is heavily embedded in the module. The students were asked to play in groups to participate in the game-based learning activity. They were also required to work in groups for the assessment (group project) at later stage. This collaboration allows students to solve problems and complete their “mission” together. The mission or goal gives a purpose of the gamified task for the players to have a goal and strive to achieve it (Xiang et al., 2014). In this lesson, the students had an opportunity to solve authentic problems which they might encounter in workplace and have chance to solve problems collaboratively and in teams.

Similar gamified learning activity was found in the fifth lesson. The Role Playing Game (RPG) was called “Make a change”. Players worked in the same team and in a same company as in the previous game. Each team received an order from the boss to apply for a change of a registered pharmaceutical product. They have to play in teams to amend the information, justify the suitability and submit relevant documents for the application. Like the gamified learning activity “Register Your Product” in the second lesson, game elements of collaboration, mission, challenge, peer support and pressure were used in this gamified activity, with the game mechanism of competition to encourage team players to achieve their goals and shared accountability (Oda and Lister, 2014). The students were assigned a mission and a role (an officer in a project team of a pharmaceutical company) in the class which imitated a real life workplace problem. The motivation to achieve the mission was intensified by the mechanism of competition, they needed to complete with other teams in order to win and obtain their boss’s (the teacher’s) positive rewards.

The above learning activities showed that it is possible to add some game elements, game mechanics in a knowledge-based lesson. To help students develop in cognitive domain might not be teacher-centered or only through lecturing. Constructing new knowledge by making good use of students’ prior knowledge and daily life experience could also be helpful in designing classroom games in VPET.

Affective Domain

Through a class observation of the lesson for student development discipline, we examine the use of gamification to deliver the concepts of global vision and some soft skills, such as problem solving skills, critical thinking and communication skills.

In VPET, the curriculum is always stressed on the practical training and skills-based learning. Students tend to be more engaged in hands-on practice. To teach generic subject, like whole person development programme, the instructional design of a lesson is a crucial factor to enhance the learning effectiveness. In our observation, the module named Global Vision, consists of 13 curriculum hours, which includes 8 hours in workshop and 5 hours in tutorials and presentation was conducted with the gamified elements. The intended learning outcomes are 1) apply critical think skills to analyze global issues in environmental, social, and economic aspects; and 2) make recommendations to the global issues relevant to the trade of study. We observed a 2-hour workshop. The original lesson planning was that the teacher firstly talked about what global issue and global citizenship are. Secondly, teacher asked students to express their ideas and views on the topic. Thirdly, the teacher explained the attitude and method on how to be a critical thinker and stressed the importance of academic honesty. Lastly, the teacher introduced reliable resources and citations in APA format. To cater for the different learning styles and needs of the Higher Diploma students, the teacher had adapted the lesson plan by adding the elements of gamification, to flip the lesson into a student-centered and more interactive one. The revised lesson plan was like this: through the game of “Guessing the beginning of a story” (The ending of a story was told, students had to guess the beginning of a story by asking yes/no question), the teacher introduced the topic of “critical thinking” and how to be a critical thinker. Then, the teacher talked about global issue by playing the game of “Pick a pic” (selecting the specific picture that related to a global issue, mentioned in a video). After that, the teacher let students watch a video clip, which was about the advertisement of bottle water and play a game of “Tasting water” to select the bottle water that is shown in the video. Finally, some more videos on global issue were played and students were asked to discuss the issues. At the same time, the teacher explained the common features of global issues and debriefed the topic of global citizenship.

We can see that after the modification of the lesson plan, game-based activities are used throughout the lesson. In the following paragraphs, we are going to explain the details of lesson delivery, and how the gamification takes place in a lesson which teaches affective domain.

The affective domain includes the manner in which we deal with things emotionally, such as feelings, values, appreciation, enthusiasms, motivations, and attitudes. The module aims of “Global Vision” is to enable students to broaden global horizons and enhance sense of responsibility of a global citizen in maintaining a balanced and sustainable career development in various context. (Krathwohl, Bloom, Masia, 1973) In order to achieve the aims, gamification is used in the lesson planning and delivery. Students are involved in various games to learn the topic of global vision and also the critical thinking skills.

In the introduction, teacher used “Guessing the beginning of a story” to arouse students’ motivation and as an introduction of the topic. The game is like this: four teams were divided, and with the ground rules were set, each team had to guess the beginning of a story as so to win the game. The teacher told the ending of a story, which was someone, was killed. Then the teams can ask yes/no question to get the clues for guessing. Each team had tried to ask questions, students were actively participated in game. Some students who had known the answers were asked to keep quiet and be an observer. The learning atmosphere was active and enjoyable. Students were excited to shout out the possible answers and until the correct one was came out. During the process, the students learned how to ask questions tactically, how to select the useful hints to solve problems, and to make conclusions by compiling the information on hand. In this game, the four elements in game design, namely freedom to fail, rapid feedback, progression and storytelling are shown. All groups have freedom to fail which means there is no limitation in asking yes/no questions and also are allowed to have multiple attempts to guess the beginning of story. In the meantime, rapid feedback would be received as the teacher would answer the yes/no question immediately for the groups to collect new information and clues. During the process, students have to think critically and select the appropriate information and eliminate the irrelevant factors so as to guess the correct answers. The element of progression was found as Kapp (2012) noted that “purposefully sequence events within the flow of the entire game to continually grab and hold the players’ attention.” Obviously, the “Guessing the beginning of a story” game was about storytelling. In our example, a murder case was used in the story and students were asked to be detectives to find out the reason and the ways on how a murder happened.

Another game was used in the lesson to achieve the intended learning outcomes, i.e. “apply critical thinking skills to analyze a global issue”. The game “Pick a pic” is like this: players formed a group of five to six. Each group will be given a set of photo and a set of global issue examples. Players have to identify one global issue among the photos with reasons in five minutes. Then they have to present the answer to the class, the group can get one point if they got the correct answer and reason. By applying the game elements we have just mentioned, storytelling, rapid feedback and progression were used. The photos used in the game are about the stories in the real world. Some are local issue and some are global one. As Kapp(2012) notes, most games employ some type of story, as people learn facts better when the facts are embedded in a story rather than in a bulleted list. The players would found easier to figure out the global issue by comparison of different stories and applied the critical thinking skills which just learnt from the previous game. After the player picked the photo and present their reasons, teachers had debriefed the game by asking three questions: 1) why some incidents are global issue but some are not? 2) how to define a global issue? 3) could you find some common features about global issues shown in the presentation? Through the repaid feedback, teacher had further explained the above points and drawn to a conclusion. The players were progressively learn the topic by apply critical thinking skills in the first part of the game, and think about the reasons and analyzing the common features of a global issue. Finally the teacher facilitated them to summarize the common features which help them to identify what a global issue is.

The third game of “Tasting water” was used to further apply the critical thinking skills in identifying global issue and global citizenship. Two advertisement videos were shown to them of two bottle water brands with different prices with some basic

information introduced. Then players were asked to taste two cups of water to identify which one is the more expensive bottle water and which one is less expensive. Since the water does not differ much in taste, players were reminded to use critical thinking to analyze the connection between product quality and price: Does higher price equal to better quality? Furthermore, the assumption of “Bottle water is cleaner” was discussed and challenged in the following discussion. Up to this point, the players have learnt progressively on understanding what critical thinking is and how to apply the skills in identifying global issue. After this game, they gradually learned more on global citizenship and what global issue meant to them. The teacher used three games to achieve the intended learning outcomes in an interactive and engaging way.

Psychomotor Domain

In VPET, most of the modules involve competency and practical skills training. The psychomotor domain includes physical movement, coordination, and use of the motor-skill areas. Development of these skills requires practice and is measured in terms of speed, precision, distance, procedures, or techniques in execution (Simpson, 1972). Under the Augmented Reality / Virtual Reality (AR/VR) Project, some modules are selected to do pilot-run in conducting hands-on practice through AR/VR technology. In one of our observation, a module under Electrical Engineering was selected to use AR/VR technology to develop students' skills on examination of life safety devices. To set the scene, the concept of gamification is also used in designing the lesson of “Lift Examination Practice”.

The game is a Role-Playing Game (RPG) which works in this way: the class was divided into four teams, each of them are given a role and a mission, in which the players acted as engineers to carry out lift maintenance and examination work. In the game, some residents are trapped into the lift and the engineers have to rescue them. Incorporating with AR/VR technology, the engineers can enter to lift and car cage and carry out all required procedures to perform lift works and to save the lives in given time. The team that can rescue the residents in shortest time will be the winner. In this example, the game elements of freedom to fail, storytelling and rapid feedback were used. Players were given opportunities to open the car cage and perform different kinds of safety check-up, in which they were encouraged to experiment without fear of causing irreversible damage by allowing them to start again at the most recent “checkpoint”. This game employs a story which is about saving the lives of residents who are trapped in a lift. It provides a good example of how even a simple integration of storytelling can be utilized to good effect. Rapid feedback will be given in forms of debriefing after the completion of the game. Teacher highlighted the points in maintaining, testing and examining lift safety devices. Therefore, we can see that practical skills can be developed in the means of gamification together with AR/VR technology so as to enhance the learning effectiveness and students' engagement.

Constraints and Challenges

The case studies reflect that game elements can motivate the lower-achieving students. The game mechanics found in gamified learning activities could engage students. While this study discusses how gamification has been applied in VPET classroom to help students to develop cognitive, affective, and psychomotor domain of knowledge, it also explains the constraints and challenges that may hinder the implementation of

gamification. One of the criticisms towards gamification in learning concerns the time availability for learners and that for teachers. Some learners may not prefer participating in gamified experience because it may not be suitable for their learning styles. Teachers may criticize that gamification is time consuming to implement gamification for learning, considering that some game mechanics require great efforts to design, prepare and sustain. There is a lack of in-depth study that prove game elements are more effective than linear presentations of educational content or hands-on practice in trade-specific modules in VPET. Some of the studies question whether gamification is more suitable in developing students' practical skills in vocational training education; whether the game elements and game dynamic are necessarily related to the content or fit for propose. There are studies pointing out the importance of understanding different types of students, for what motivates some does not work for others (Hakulinen and Auvinen, 2014). Therefore, one of the challenge is to understand students' needs and learning characteristics, and estimate their response to which gamification will be used. Last but not least, class size is also a concern for the implementation of gamification. Some game dynamics are difficult to adopt and manage with a relatively large class. For example, in VPET, some core modules are delivered in a large lecture due to the large number of students. Gamification may benefit to students to a rather skin deep level, i.e. arouse their motivation and draw their attention back with little games.

Conclusion

In our research, we have put on the glass of gamification to view the three types of lesson, which are cognitive, affective and psychomotor domain, and see how we add game elements in teaching so as to enhance student's motivation and engagement. From the above explanation, we can see that gamification, which refers to the application of game dynamics, mechanics, and frameworks into non-game settings (Stott and Neustaedter, 2013), has been used in both lesson planning and classroom delivery in VPET. Students in those classes enjoyed it much and actively participated in all the games. Laughters and cheers were found throughout the lessons. To deliver knowledge-based lesson, it is always an obstacle for a teacher to deliver tons of information, theories, ordinance, and hard facts to the students who have low attention span. Games would be a good option for students to receive information and data in fun and natural way. In opposite, generic skills, or soft skills such as thinking and communication skills, are sometimes too ambiguous for students to understand or even apply them. By playing games, they could easily grasp the skills and apply them in classroom setting. One thing that we may have to consider is, when developing students practical skills, is it feasible to add game elements as the psychomotor lesson would have plenty of hands-on practices, students may not have the room to play games in such context? In our example, incorporating with AR/VR technology in the game-based lesson would be a choice. Yet, in most of the trade specific modules or competency-based training, many curriculum hours are used to conduct hands-on practice, in which the teacher have already spent much effort and time in developing students' practical skills through demonstration and hands-on practice, games, in this sense, seems like less effective than when it is used in conducting cognitive and affective domain. Further research on which domain is best fit for using gamification to enhance the motivation is yet to be conducted. By having more observation on various classes, we may collect more information and evidence in finding out how much can gamification help in VPET's teaching and learning.

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***Student Assistantship Program:
Advocating Inclusive Growth through Education***

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Abstract

There has been much discussion about the need to ensure that growth translates into broad-based improvements in living standards that touch all citizens rather than a fortunate few. Yet there is little practical guidance about how countries can achieve both growth and equity (World Economic Forum 2015). There are various ways of assisting families improve their standard of living. One of the most basic and practical ways is to provide them something that can empower them on a long-term basis—education for their children. However, this need is not the priority of families with meager income.

Educational institutions employ varied approaches to provide education to the marginalized groups. Some universities provide educational loan to cover the tuition fee of the enrollees. Other institutions offer various scholarship programs. Using the descriptive design, this study relates the features of the Student Assistantship Program as a scholarship program of the University of the East. It is a work-study grant extended to the less fortunate enrollees of the institution. This study weighed up the program's effectiveness in enabling underprivileged students to obtain college education. It also analyzed how the program measured up as an initiative that advocates inclusive growth. There were 65 students who were recipients of the educational assistance under the Student Assistantship Program. The study revealed that the assistantship program is fostering the ideals of inclusive growth.

Keywords: scholarship, scholarship program, inclusive growth, educational benefit, student assistantship program

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Introduction

The demand for college graduates (in the Philippines) is increasing over time and parents respond by choosing to enroll their college-age children. Furthermore, tuition fees are likely to increase from inflation and from the drive for quality improvements in all aspects of college education. In this environment, student loans and other forms of financial aid are critically important. Since the caps on student loans will have to be standardized, financial aid to needy students must include scholarship grants and work-study programs (PIDS 2016).

In pursuing inclusive growth, the Commission on Higher Education (CHED) can exert an influential role in at least four activities: (1) designing student loan and other financial aid program, (2) determining the budget allocations of state universities and colleges by region, (3) setting content standards in core courses and subjects in all colleges and universities, and (4) devising standardized tests for determining compliance with content standards of both public and private higher education institutions (PIDS 2016). In view of the foregoing, this researcher ponders on the responsiveness of the financial aid programs in meeting the economic needs of the college students.

This study discusses the Student Assistantship Program (SAP), a study-work program of the University of the East that benefits the less fortunate but deserving students who intend to pursue and complete college education. The purpose of the study is four-fold. First, to identify the benefits offered by the Student Assistantship Program (SAP) to the less fortunate students of the University of the East; second, to determine the qualifications of the student-beneficiaries; third, to compare the program with educational programs implemented by institutions in other countries; and fourth, to assess if the educational program advocates inclusive growth.

Through the study, the researcher hopes to affect the future plans and initiatives of local and international higher institutions of learning to create and improve on existing programs that can promote inclusive growth through education. The study may spur on marginalized families to look for a school that can provide education for their children as most of the colleges and universities in the world have educational programs in place. Government agencies and cause-oriented groups that provide support for the youth and underprivileged members of the society may also draw insights from this paper.

Higher education institutions (HEIs) in the Philippines offer varied programs allowing students to obtain education in spite of their financial lack. In the University of the East alone, there are six scholarship programs extended to qualified enrolees. The **University President Scholarship (UPS)** (UE Student Manual 2015) is awarded to enrolees who obtain a grade point average (GPA) of 1.00 – 1.20 per semester, with 18 credit units, and with no failing grade. The scholarship provides 100% free tuition and miscellaneous fees per semester, book allowance of Php1,500.00 per semester and a stipend of Php6,000.00 per semester. The **University Scholarship (US)** is awarded for one semester, renewable every semester, to UE undergraduate students who obtain a grade point average (GPA) of 1.21 – 1.40 for an academic load of at least 18 credit units, with no failing, dropped, or incomplete grade in any subject, is enrolled in the same degree program in which the student was previously registered,

and has no record of misconduct or misbehavior. This is also awarded to incoming freshmen who graduated valedictorian in a high school with at least 45 graduates. The scholarship provides 100% free tuition and miscellaneous fees per semester. The **College Scholarship (CS)** is awarded for one semester, renewable every semester, to UE undergraduate students who obtain a grade point average (GPA) of 1.41 – 1.60 for an academic load of at least 18 credit units, with no failing, dropped, or incomplete grade in any subject, is enrolled in the same degree program in which the student was previously registered, and has no record of misconduct or misbehavior. This is also awarded to incoming freshmen who graduated salutatorian in a high school with at least 45 graduates. The scholarship provides 50% discount on tuition and miscellaneous fees per semester. The **UE-Tan Yan Kee Foundation, Inc. (UE-TYKFI) Scholarship** is awarded to qualified incoming freshmen who intend to pursue a degree in any of the following disciplines: Science/Mathematics, Accountancy, Computer Science/Information Technology, Dentistry, and Engineering. The scholarship offers 100% free tuition and miscellaneous fees, a Php1,500.00 book allowance, Php1,000.00 uniform subsidy and Php1,000.00 transportation allowance, as a Php2,500.00 monthly stipend. Full scholarship was given if the grantee had a GWA of 1.50 or better with no grade lower than 2.50 in any subject, no failing, dropped, or incomplete grade in any subject. The **Athletic Service Grant** provides free tuition (full or partial) and other privileges to students with outstanding skills, aptitude and ability in sports. The grantee must be of **University Athletic Association of the Philippines (UAAP)** calibre. The **Cultural Service Grant** provides free tuition fee (full or partial) to members of the chorale, band, drama company, dance troupe and the pep squad.

What if the enrollees are not qualified in any of the above-mentioned scholarship programs, and they are financially incapable to pay for the tuition fee? The Student Assistantship Program (SAP) is the only educational program of the University of the East that gives hope to the less-fortunate students *who would not qualify* in any of the above-mentioned scholarship and grant programs of the institution. Just like other grantees, they too can enjoy financial benefits. This attests that the University of the East, through its Student Assistantship Program, exemplifies the goal of inclusive growth.

What does literature say about educational programs instituted by tertiary schools that support the less fortunate students?

China, India, Indonesia, Malaysia, Thailand, and Vietnam have all experimented with student loans in recent years—often with rather disappointing results. Some of these schemes aim at cost recovery; others target greater access, particularly by the poor. Several countries have multiple schemes. Student loans are of two basic kinds—income-contingent and mortgage. The former was developed to raise participation in higher education without penalizing the poor (ADB 2012). While it allows a discount to wealthy students, who pay fees upfront, the basic principles of this form of student loan, versions of which have been exported to a number of transitional and developing economies, levy a fee on each student for each year of study. A key element in income-contingent student loans is that individuals do not begin repaying the loan until after graduating and securing a job wherein the income falls above a designated threshold (ADB 2012).

In mortgage-type loans which were developed earlier and have been adopted by many countries, the borrower pays off all the principal and interest of the loan over the specified loan period. If an individual has difficulty completing repayments during the specified term of the loan, the term may be extended. Each type of loan has its advantages, disadvantages, proponents, and critics. Disadvantages of mortgage-type schemes are that they are often insensitive to future income, while it can be difficult to assess the income of the family to determine eligibility, especially in developing countries, where the informal sector of the economy is larger. The former problem means that repayments may well be high during the early part of the loan, when a graduate's income may still be low. This may lead to defaults, which can then affect individuals' credit ratings more generally. The other problem (of assessing family income levels) is commonly addressed via a means test, which in many developing countries is not always thorough, transparent, or accurate. If the individual completes his/her studies and then moves abroad, it can be difficult to collect the repayments. Each country needs to develop a scheme that takes account of local conditions. When choosing among the various options, consideration should be given to the costs to government of alternative rates of interest subsidy, the burden of debt facing borrowers, and the likely rate of default if repayment terms are too harsh.

In Thailand, a loan scheme was introduced in the 1990s, but inadequate funding and a much higher than expected level of interest ensured that the size of individual loans offered to students fell from year to year. There was minimal planning and weak control from the center, combined with overgenerous loan eligibility and repayment conditions. This led to a substantial and unplanned growth in loan recipient numbers and unexpected, and unsustainable, funding obligations by the state (ADB 2012). At one point, allocations to the scheme reached 30 billion baht, which was 14% of the national education budget. Moreover, while continuing recipients were assured of the same annual amount, contingent only on satisfactory academic results, new recipients had no such assurances; indeed, funding for new recipients fell by almost 50% from 2000 to 2001. The picture was also very different for students in public HEIs, of whom only 13% participated, and students in private HEIs, of whom almost 37% took out loans. Repayments in the early years of the scheme were somewhat chaotic, with more than a quarter not making a single repayment, while another quarter made payments considerably in excess of the due amounts, with some paying off the entire loan (ADB 2012).

The history of student loans in India underlines some similar issues in the context of evolution from early schemes, which were abandoned due to low recovery rates and poor performance, to a national education loan scheme, introduced in 2001 and operated by public banks. From 2007, student loans of up to Rs1 million (\$22,600) for study within India, and up to Rs2 million (\$45,200) for study overseas, have been available. While default rates are low, applicants find processes to be cumbersome and time consuming, and bank staff often seem poorly trained for the task. The facts that banks charge high rates of interest, and pick students with considerable collateral who are seen as low risk but who may not be in need of loans, minimize the reach and equitability of such mortgage-type schemes (ADB 2012).

As in Indonesia, with a large informal sector and limited capacity to collect tax, income-contingent repayments may be problematic in India.

Loan schemes were introduced into the PRC (People's Republic of China) as early as 1986, but with average amounts that proved too small, and conditions (such as having to repay the loan before graduation) that made them unviable. Predictably, coverage was inadequate. In 1999, two schemes were established: one subsidized by government, the other a more commercial operation. The Government Subsidized Student Loan Scheme, the larger of the two, was targeted at poor full-time students at public universities. Evaluation of need was undertaken by the student's HEI. The maximum amount of Rmb6,000 was generally sufficient for tuition and fees, but not enough for living costs. By the end of 2001, around 30% of applicants had received loans, but this amounted to only 3.8% of students. By 2004, 830,000 students had availed of loans. Some evidence showed that more non-needy than poor applicants qualified for the scheme, some with lower college entrance scores than needy students. Significant shortcomings soon became evident. A short (4-year) repayment period imposed impossible debt burdens on students, amounting to at least 24% of annual income. This meant that, although targeted at poor students, the only ones likely to be able to repay the loans over such a short period were the very ones who did not need loans in the first place (ADB 2012).

Not all scholarship programs are helpful to grantees and to their families. Obtaining college education is the best route toward obtaining employment and later on improves the economic condition of the family. But this may not happen if the graduates are required to pay back the educational loan, and this may take a long time. When grantees need to focus in their studies in order to obtain satisfactory grades to stay in the scholarship program, the debt burden may stress the students.

Student loans may not be substantial for other needs of the students such as food, transportation, and other expenses. If the loan is just enough to cover matriculation, the other needs would still be a problem. One cannot study well with empty stomach. Distance of the school to the student's place of residence is another concern. Without a means to get to school, how can one become a student!

In some countries, student loans were granted not according to qualifications of the potential grantees, but based on availability of funds. Sufficiency of funds for student loans was also a problem. When repayment was low, the number of beneficiaries was likewise low. Hence, other students who needed funds could not enroll. Implementation of the scholarship program was also chaotic. Some students who were not "so needy" were the ones provided with loan while the ones who were really in need were deprived.

Methodology

Information of recipients of the Student Assistantship Program (SAP) during the first and second semesters of school year 2015-2016 was obtained from the files of Human Resource Department (HRD) of the University of the East. The department is in-charge of processing applications for the program. The samples comprised of 65 students who qualified for the program. The number represents one hundred percent of the applicants. All the essential details needed in the study were obtained from the application form accomplished by the student-applicants.

Among the information drawn from the files were the student's name, gender, chosen program, occupation of the parents, family income, size of the family, and the reason for applying in the assistantship program. An interview with the HRD staff was also conducted to gather additional information about the SAP recipients.

Pertinent information about the recipients was also examined to ascertain the efficacy of administration of the scholarship program—making sure that the support was awarded to qualified student-applicants.

To determine whether the Student Assistantship Program (SAP) of the University of the East is responsive to the financial needs of the college students, the researcher assessed the benefit package of the program.

The study also analyzed the efficiency of the Student Assistantship Program (SAP) in responding to the financial needs of the less fortunate students enrolled at the University of the East located in Manila, the capital city of the Philippines.

Discussion

To enter the University of East, the enrollee needs to raise Php36,000 to Php49,000 per semester. The tuition fee is definitely not affordable for low-income groups. If an enrollee cannot afford to pay the tuition fee and will not qualify for any of the scholarship programs, the only opportunity left for the enrollee to study in the University of the East is through the Student Assistantship Program. An enrollee qualified for the Student Assistantship Program (SAP) enjoys full subsidy of the tuition fee plus an allowance of Php600.00 monthly. The allowance can be spent for transportation and/or food allowance. A student can spend Php20.00 to Php100.00 for transportation and Php50.00 to P100.00 for food daily.

But can the family provide for the food and transportation allowance of their son or daughter? The tables below reflect the occupation of the parents of the SAP beneficiaries.

Table 1. Occupation of the Father of the SAP Recipients

Occupation of the Father		
	Frequency	Percentage
Unemployed	12	18
Blue Collar Job	11	17
Employee	8	12
Self-employed	6	10
Tricycle Driver	7	11
Farmer	5	8
Vendor	3	5
Security Guard	2	3
OFW	2	3
Factory Worker	2	3
Police Officer	1	1
Pastor	1	1
Deceased	5	8
Total	65	100%

Eighteen percent (18) of the beneficiaries came from families where their fathers are jobless; 17% perform blue collar jobs; 12% are employees; and 11% are tricycle drivers. The rest have low-paying jobs. If the head of the family is jobless, he can hardly provide for the needs of his family; more so education of the children.

Table 2. Occupation of the Mother of the SAP Recipients

Occupation of the Mother		
	Frequency	Percentage
Teacher	3	5
Housewife/Unemployed	31	47
Employee	16	25
Vendor	4	6
Factory Worker	2	3
Self-employed	1	1.5
Farmer	1	2
OFW	4	6
Domestic Helper	1	1.5
Single Mother	1	1.5
Deceased	1	1.5
Total	65	100%

For the mothers of the beneficiaries, 51% of them are plain housewives and 49% were employed.

A student qualifies for the student assistantship program if the combined income of their parents is not enough to provide for the needs of the family.

The financial provisions for the student-beneficiaries under the SAP program may be considered more than enough, enough, or not enough for the needs of the student-beneficiary; it depends on the financial needs of the student.

Now, how does the Student Assistantship Program provide for the needs of the students? The student-beneficiaries are assigned in offices in the university where they render a four-hour work daily, five days a week. They can be assigned as assistant, internal messenger, checker (to check the attendance of faculty members), clerk, typist, or encoder. Every semester, the student-beneficiaries are given their work schedule before they enroll to ensure that their work does not conflict with their class schedule. The students should enroll in at least 18 units every semester. They may spend 7-8 hours daily in campus. If their duty is from 7:30 to 11:30 in the morning, their classes can start from 1:00 to 5:00 pm. That is a total of 8.5 hours daily; they still have 15.5 hours daily for study, travel, household chores, and sleep. Majority of the beneficiaries remained in the assistantship program for about two to three consecutive years. This indicates that the students can handle the workload—work and study—with ease.

Table 3. Program Selected by Student-beneficiaries of the Student Assistantship Program

Course of Beneficiaries		
	Frequency	Percentage
Accountancy	5	8
Accounting Technology	15	23
Business Management	1	1
Marketing Management	9	14
Financial Management	4	6
Computer Science/IT	9	14
Engineering	3	5
Education	5	8
Library Science	6	10
Legal Management	1	1
Broadcasting/Journalism	6	10
International Studies	1	1
Total	65	100%

The 65 recipients of the study-work grant were enrolled in different programs: 15 were in Accounting Technology; 9 were in Marketing; 5 were in Accountancy; 9 were in IT; 6 were in Library Science; 6 were in Journalism/Broadcasting; 4 were in Financial Management; 3 were in Engineering; 5 were in Education; 1 was in Business Management; 1 in Legal Management; and 1 in International Studies.

The tuition fee students pay vary according to programs. The five-year programs are more expensive compared to the four-year courses. The beneficiaries choose the course based on their skills and interest and perhaps the job opportunities available in the field.

Fifty-four percent (54%) of the beneficiaries' family were earning Php 50,000-100,000 or Php 4,200 – 8,400 a month—hardly enough to provide for the food alone of a family of four members per month. Thus, the students were considered qualified for the Student Assistantship Program (SAP).

Conclusion

The educational assistance provided by the University of the East allowed the less fortunate students to obtain education in a city-based private institution. This may guarantee an improved future for the beneficiaries and their families—the ultimate purpose inclusive growth programs seek to attain.

In selecting the beneficiaries of the SAP program, the student-applicants should establish that their parents are not capable of supporting their education financially. The applicants should be full-time students, and they were not employed.

Compared to other scholarship programs, the Student Assistantship Program (SAP) of the University of the East was more responsive to the needs of the student beneficiaries. The tuition and miscellaneous fees in the University of the East ranges from P40,000 – 48,000 for regular load of 21-24 units per semester or P80,000 – 96,000 for one school year. The student-beneficiaries can enjoy full subsidy of the tuition and miscellaneous fees as long as the students qualified and covered by SAP. Aside from tuition fees, the beneficiaries were also given stipend of Php600.00 per month. The benefits under the SAP were far better than student loan that other local and foreign institutions offer.

When all of the 65 SAP beneficiaries obtain their college degree and become employed, their entire family will benefit. They would have more food in their table; they can also send their siblings to school.

The University of the East (UE) has been implementing the educational program for more than 60 years. This means that long before the idea of inclusive growth was conceived, UE was already into it. If an average of 50 students benefitted from the program per semester in the last 60 years, by this time, UE has helped 6,000 families.

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The logo for the International Association of Forum and Research (iafor) is centered on the page. It features the word "iafor" in a light blue, lowercase, sans-serif font. The text is surrounded by several concentric, curved lines in shades of blue and red, creating a circular, dynamic effect.

***Practices for Public Relations Effectiveness in Education and Social Justice
within and across Borders***

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Abstract

The effectiveness of Public Relations (PR) depends on good planning. Good planning is the best way to practice preventive action rather than remedial PR. Tactical and strategic plans help PR coordinate its efforts with those of other areas of the organization (Baskin, et al, 1997, p. 129). This study focuses on the PR practices at the Faculty of Social and Political Sciences (FISIP), Universitas Brawijaya (UB) for education and social justice programs within and across borders. Indonesia has 34 provinces with different cultures and religions. The implementation of the education programs should be supported by the Indonesian Government policy, especially to build social justice. It has become significant ever since the number 5 of Pancasila (as Indonesian Country Basic) has notified that social justice must be ensured for all Indonesian citizens. This study uses the method of qualitative research. The technique of data collection has been through interviews and observation. The researcher has used the domain and taxonomy analysis as the data analysis technique.

Result of this study: (1) The practices for PR effectiveness in FISIP UB heavily stresses on social justice. It means that all Indonesian citizens can access the faculty's website to enroll at FISIP UB. (2) In order to implement word class faculty, every stakeholder has the same opportunities in experiencing the benefits of both the domestic and the international educational environment. (3) Developing PR practices to reach the goals can be started from Management by Objectives as management plans and by conducting campaigns or project budgets.

Keywords: PR, effectiveness, education, social justice

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Introduction

Indonesia has a large area with many natural resources. Indonesia is located in the equatorial area. Indonesia has the aim of making social justice and welfare as the national ideals. Higher education can support these national ideals through public relations. Practices of PR is the art and social science of analyzing trends, predicting their consequence, counseling the organization leader, and implementing planned programs of action which will serve both the organization and the public interest. To employ social justice in education, we can implement cross-border mobility. Cross-border mobility of students is a core component of the internationalization of higher education (Li and Bray, 2007, p. 2).

Social justice in education has to be realized in accordance with the dynamism of social change. We argue that teaching social justice or what we call “good and just teaching,” reflects an essential purpose of teaching in a democratic society in which the teacher is an advocate for students whose work supports larger efforts for social change (Cochran, et al, 2008, p. 1).

Enrolling students with special needs is very significant in higher education. It becomes evident that higher education employ social justice. The Salamanca World Conference on Special Needs Education (UNESCO, 1994) declare:

- Every child has a fundamental right to education, and must be given the opportunity to achieve and maintain an acceptable level of learning,
- Every child has unique characteristics, interests, abilities and learning needs,
- Education systems should be designed and educational programs implemented to take into account the wide diversity of these characteristics and needs,
- Those with special educational needs must have access to regular schools which should accommodate them within a child centered pedagogy capable of meeting these needs (in Wahab, p. 4).

Public relations program in social justice should be made effective. There are some processes in a public relations program, starting from fact finding through research, planning, implementation, to evaluation. The various missions that public relations in higher education aim to achieve are: 1). building a positive image, 2). creating synergy communication between higher education and society, 3) building responsive institution toward society dynamism (Satlita, p. 1).

Indonesia has 34 provinces with different cultures, languages, ethnics, and religions. There are many higher educational institutions in Indonesia. The focus of this study has been the Faculty of Social and Political Sciences (FISIP) Universitas Brawijaya (UB). The motto of this university is “building-up noble future”. According to Nirwana and Illahi (2015, p. 313), even today the role and function of public relations is growing considerably so much so that nowadays public relations practitioners are able to hold and carry out management activities. It is known as the public relations management.

Planning effective public relations strategies is a challenging job. It is more than just compiling newsletters, putting up a Web site, or writing newspaper articles. Being a public relations director means building relationships with community members by informing and involving them as much as possible with school programs (Carlsmith

and Jennifer, 2001, p. 18).

There are many roles that PR plays in higher education. Especially in education and social justice programs, PR can be an expert prescriber, communication facilitator, communication technician, and problem solver. According to Higgins (1983, p. 25) in Savio (1992, p. 2), PR plays a central role in strategic planning of higher education. Universities look to public relations units to manage crises, boost rankings, increase donations, and carry out a variety of other tasks (Hirsh & Weber, 1999; Spagnolia, 1998). University public relations units are practicing public relations in order to see whether their practices are excellent (Source: Public Relations in Higher Education).

FISIP UB is one of the most popular Faculty in UB. The number of candidates who wanted to join FISIP UB in the year 2015 was 18,831 out of which only 1.292 could become FISIP UB students. The social justice programs of FISIP UB in education across borders can be seen implemented by every stakeholder. They have the same opportunities in experiencing the domestic and the international educational environment.

With six undergraduate programs, three postgraduate programs and internationally reputable lecturers, the Faculty is committed to contribute to the society through the pursuit of education, learning, and research, which is mostly based on local wisdom at the highest international level of excellence. In addition, it has realized that as a higher educational institution FISIP UB has an obligation to serve the community. Therefore, it conducts many community services that really meet the stakeholders' needs.

Even though the Faculty is relatively new, yet it has a very enthusiastic, optimistic, and ambitious staff. It believes that qualified education and research, as well as proper community services can change the world for the better. All these efforts could contribute not only for building up an academic society but also for the society in general.

The department is confident about its dedicated staff, regularly reviewed curriculum based on the global changes, nationally and internationally well-known lectures as well as researchers.

In the future, the public relations professionals will not only be skilled as communicators but leaders who will help their organizations build and maintain relationships with publics. They will fulfill the dual roles of managing communication as well as counseling the top management (Commission on Public Relations Education, 1999, p. 12). This paper explores the practices of PR effectiveness in education and social justice within and across border. It will explain the practices of PR in FISIP UB. This paper will explore the PR activities of FISIP UB in Indonesia and overseas in accordance with education and social justice programs.

Method

The method that this research has employed is that of qualitative approach. This study uses interviews and observations as its mode of data collection. Interviews are one of the most fundamental techniques researchers use to get information (Berger, 2000, p. 125). Data analysis techniques as used by this research are that of domain and taxonomy.

Ethnographer James Spradley developed the method for domain analysis - an innovative and comprehensive approach for analyzing qualitative data. Spradley defined the basic unit in a cultural setting as a domain, an organizing idea or concept. Domains are later combined into taxonomies and broader themes to provide an overall interpretation of a cultural scene or social setting. (Newman, 2000, p. 429).

The researcher has divided its area of research into nine domains for analyzing the data. These consist of variants, spatial, cause-effect, rational or reasons, location to do something, procedure to reach something, function, steps, attribute or characteristic.

Result and Discussion

The researcher has collected data by using the domains, namely: (1) Variant of PR practices, (2) Space for PR practices, (3) Cause-Effect from PR practices, (4) Reason for education and social justice, (5) Location for practicing PR policies, (6) Procedure to reach FISIP goals, (7) Function of PR in FISIP UB, (8) Steps of PR practices, and (9) Characteristic of PR practices. Given below is the explanation for each domain:

1. The Variant of practices for Public Relations Effectiveness in Education and Social Justice program in FISIP UB:

Developing PR practices to reach the goals can be started from MBO (Management by Objectives as management plans); and continued through effective campaigns or project budgets. Paisley (1981, p. 24) notes that the definitions of a campaign stress either on (1) the intention, or (2) the process of the campaign.

The action of FISIP UB in the education and social justice program within and across borders is publicized by advertising it through its website, radio and television programs, bulletins, brochures, and posters. A website can be a very effective way to market a school and to communicate to the community if it is designed to meet the needs of those who will use it the most (Carlsmith and Jennifer, 2001, p. 10).



Figure 1: Website of FISIP UB (www.fisip.ub.ac.id)

Creating WebPages serve as public communication. One can place data into a global communication context through the Hypertext Markup Language (HTML). Adams and Clark (2001, p. 198) notify that HTML advances human communication in so many ways that we cannot fathom the full impact yet. When the department's data is showcased via HTML in the global village that is the Web, the entire range of human experience becomes mediated into a public consciousness.

Everyone who fulfills enrollment requirements can join in for a regular or an English class at FISIP UB. Campaign or project budget is covering Campaign about curriculum and course description for regular and English classes at the Department of Communication and Study program of International Relations and distributing and socializing guidebook of undergraduate thesis writing, guidebook of internship, dissertation writing guidelines; distributing and sharing result of academic works. For example one could look after the process of scientific lecture.

Education and social justice programs enhance the faculty's reputation. FISIP UB has employed visiting lecturers not only from the developed countries but also from the developing countries. PR in FISIP UB gives high attention to increase the effectiveness of education and social justice programs within and across borders.

2. Space for PR practices

PR of FISIP UB has been using its social justice program not only in Indonesia but also in overseas education. It means that the PR of FISIP UB aims at conducting education and social justice within and across borders.

Education and Social Justice through Cross-border mobility:

- Cross-border mobility of students is a core component of the internationalization of higher education (Li and Bray, 2007, p. 2). Some strategies employed by FISIP UB to create cross border mobility is by starting an English class for the Department of Communication and International Relations Study Program, and welcoming international students for short courses.
- We argue that teaching for social justice, or what we call “good and just teaching,” reflects an essential purpose of teaching in a democratic society in which the teacher is an advocate for students whose work supports larger efforts for social change. (Cochran, et al, 2008, p. 1).

3 . Cause-Effect of PR practices

FISIP UB employs its education and social justice program to enjoy some long-term benefits. Public relations effectiveness in higher education helps in building positive image, synergy communication between higher education and society, and building responsive institution toward society dynamism. PR effectiveness in FISIP UB can be shown by building positive image for 9 study programs, namely: sociology, communication, psychology, international relations, political science, governmental studies, and postgraduate programs (master of communication, master of social science), and doctoral in sociology. All the activities of the study programs must be in line with the education and social justice programs. FISIP UB has a social responsibility towards its Education and Social Justice Within and Across Borders program. FISIP UB also facilitates scholarship for poor students. FISIP UB undertakes many interactions with all the provinces in Indonesia and indulges in cooperative mechanisms with some of the countries from 4 continents. FISIP UB distributes proportional job description for academic stakeholders. FISIP UB improves education quality by paying attention to education and social justice. The goal of this program is to maintain the ethos of Bhinneka Tunggal Ika (Unity in diversity) and to reach world-class faculty.

Practices of PR Effectiveness in FISIP UB: 1) its students can go to many provinces and overseas, to be a part of domestic or international competitions, 2) FISIP UB supports all the students by giving achievement motivation training, 3) it support all the programs and on top of that public relations inform faculty financial resource management. From PR of FISIP UB activities, it has garnered a positive image by making the faculty more popular in Indonesia and some other countries who have offered to cooperate with this faculty.

4. Reasons for doing an education and social justice program.

FISIP UB supports the national ideals of Indonesia to propagate social justice and welfare.

5. Location for its PR practices

The PR of FISIP UB has been employing its PR practices in education and social justice in Indonesia and the overseas.

6. Procedure to reach the goals

PR of FISIP UB has been doing PR effectiveness. Here the level of PR effectiveness in FISIP UB according Yardstick.

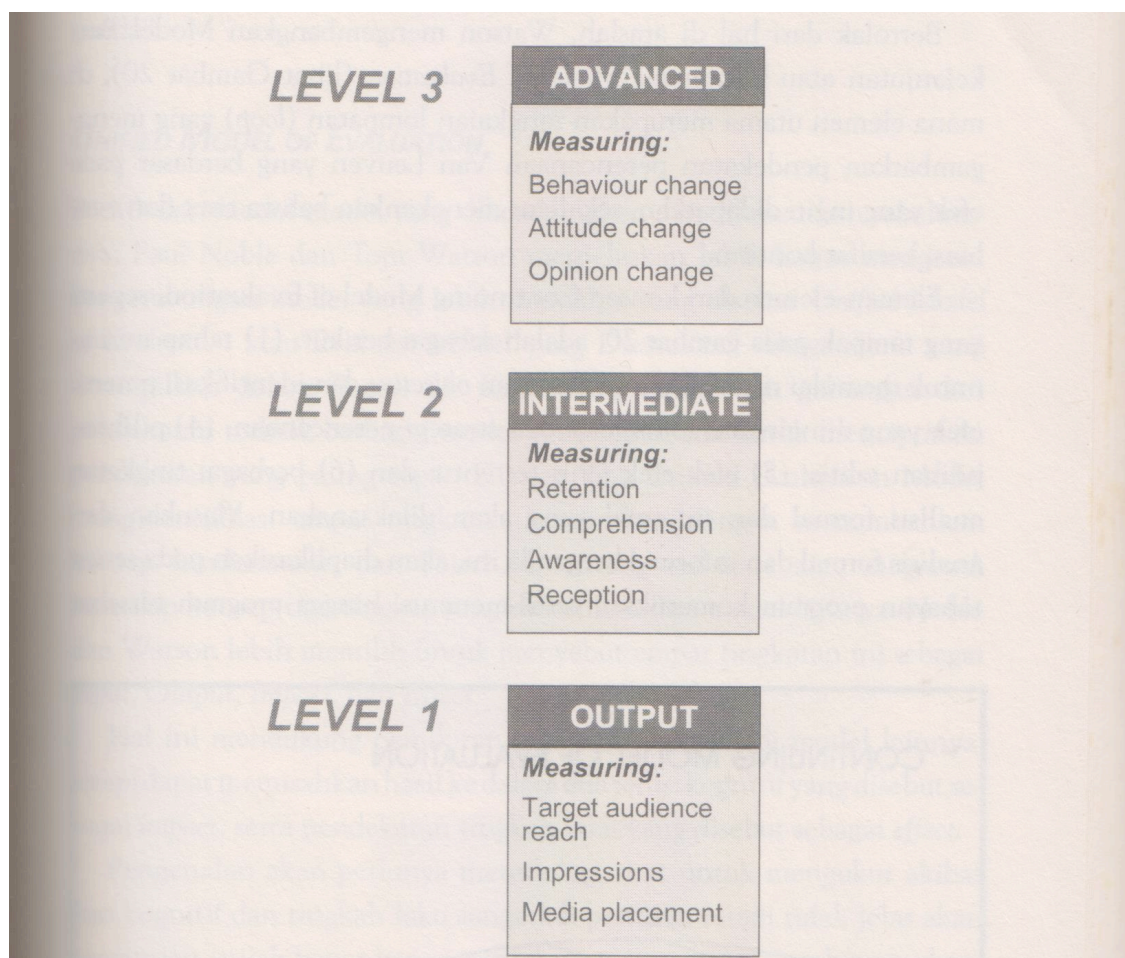


Figure 2: PR Effectiveness Yardstick
 Source: Liendenmann, (1993) in Wasesa (2015, p. 1993).

Practices for PR effectiveness in education and social justice in FISIP UB

LEVEL 1: OUTPUT

Measuring: Target audience reach (stakeholders of FISIP UB).

Impressions: satisfaction

Media Placement: official website, radio and TV, bulletin, brochure, leaflet, poster, and guidebook.

LEVEL 2: INTERMEDIATE

Measuring:

Retention: Through database of FISIP UB.

Comprehension: To reach world class Faculty.

Awareness: Attention to education and social justice

Reception: Supporting for education and social justice programs.

LEVEL 3: ADVANCED

Measuring:

Behavior Change: All stakeholders have tolerance

Attitude Change: Supporting unity in diversity

Opinion Change: FISIP UB become multicultural
Faculty (positive image)

7. Function of PR in FISIP UB

The function of employing PR in FISIP UB for the education and social justice program is to initiate a two-way communication with the FISIP UB stakeholders. The goal of this activity is to reach a dialogue of harmony. Professional PR should do their good duties. PR of FISIP UB serves the public interest, helping in maintaining the image and stressing on good moral. To reach its organization goal, PR of FISIP UB provides advice to the organization for public needs. The PR of FISIP UB helps in spreading information. It means that the PR of FISIP UB can be an active communicator in a two-way communication.

8. Steps of PR Practices

To practice the public relations effectiveness, FISIP UB maintains its media relations. According to Silver (2003, p. 25), some activities in its media relations include press releases, press conferences, press calls, media briefing, media events (luncheons, a local fair you sponsor), radio, television, newspaper, and magazine interviews, radio talk shows, development of your organization's own radio or television program, meeting with editors, placing opinion pieces in the local newspaper, letters to the editor of the local newspaper, press kit, public service announcements, in-house publications, newsletters, electronic communications, banners, websites.

Indicator that its public relations are successful: receiving feedback, clipping (for controlling the organization position), research and survey (for determining public relations strategy accordance organization goals); directing public relations; public participation (Fariani and Aryanto, 2009, p. 110).

9. Characteristic of PR Practices.

Public relations in FISIP UB aim at reaching international levels. According to Ardianto (2011, p. 284), international public relations are efforts made by using planning of corporate or organization for building mutual benefit relation with public from overseas.

Everything your organization is currently doing is already being communicated to each of your intended and unintended audiences. To ensure that the right messages are being communicated and received, the organization must put into place the most powerful marketing discipline available - the corporate image management process. (Howard, 1998, p. 177).

Public relations managers are problem solvers and advisors to senior management. They are responsible for broad program result. Broom and Dozier in Baskin, Aronoff, and Lattimore, (1997, p. 64) identify three manager roles:

- Expert prescriber operates as a consultant to define the problem, suggest options, and oversee implementation.
- Problem-solver process facilitator, partners with senior management to identify problems and solve problems.
- Communication facilitator, the person on the periphery between the organization and its environment who keeps two-way communication flowing.

Conclusion and Suggestion

Conclusion:

1. PR of FISIP UB practices education and social justice programs within and across border. They campaign and share information through website, radio, television, bulletin, brochure, poster, leaflet, and guidebook.
2. PR in FISIP UB plays a central role in strategic planning of higher education (according Higgins, 1983, p. 25, in Savio 1992, p. 2), especially in education and social justice programs.
3. To practice public relations effectiveness, FISIP UB maintains media relations.

Suggestion

1. PR in FISIP UB should increase the number of education and social justice programs within and across border to accelerate internationalization.
2. To improve strategic planning in education and social justice, PR in FISIP UB can use PR effectiveness level as self-evaluation.
3. To practice PR effectiveness, FISIP UB has to perform excellent activities for all stakeholders, especially producing excellent programs in education and social justice.

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Minding the Gap: Confronting the Standardized Testing Mindset in Higher Education

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Abstract

In Japan, standardized testing or 'teaching to the test' instruction continues into higher education and professional training. Near universal application of standardized testing as a measure of overall academic competence may result in 'gaps' in the learner's ability to judge critically new and unfamiliar information and contexts. This article examines how learners will often apply pre-conceived notions and beliefs in unfamiliar contexts and often fail to apply critical thinking strategies, instead relying on mythical, folkloric concepts based on national identity and the 'uniqueness' of the Japanese 'race'. Two such folkloric beliefs are examined, and learners are presented with contrary, factual data in order to reveal these 'gaps' to the learners themselves. Gaps in critical (scientific) methodology learners have exhibited include: confirmation bias, cherry-picking, equating published study with scientific 'truth', and disinformation through cultural/national mythology. This article reveals that for many medical students, there is a tendency to rely on memorization and preconceived notions when confronted with complex and unfamiliar situations, suggesting that it is important for educators to identify these non-scientific approaches to problem solving and attempt to correct these approaches in the learners themselves.

Keywords: standardized testing, critical thinking, confirmation bias, folklore.

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Introduction

Teaching to the test has become standard practice in Japan. The uniformity of instruction that this approach requires, as well as the apparent fairness of everyone being judged by the same standard, fits well within the parameters of conformity and equality that are hallmarks of Japanese society. Learners raised on this system become very comfortable with rote memorization and test-taking strategies. Those who excel in this system are on track to join the professional classes as lawyers, business leaders, and doctors.

In practical medical training at university level, however, complex, interacting variables in individuals and in populations as a whole confound this approach. 'Answers' are not merely a matter of black and white, of simple memorization, but rather the product of evolving knowledge of specific, interconnected, phenomena. The stark limitations of the 'standard' approach to learning are revealed through the 'gaps' students exhibit in their lack of prior knowledge, or presupposed misinformation.

For these reasons, this article will depart from the usual lines of critique of 'teaching to the test'. Such things as cultural, class, and racial or gender bias inherent in a particular standardized test itself will not be directly examined in this article. Instead, the article is an examination of the effects of this testing system, however bias in any (or other) of the abovementioned ways, on the overall approach particular students apply to complex, unfamiliar problems.

In requiring learners to confront their understanding of a particular phenomenon, and in doing so either defend it or evolve their opinion on said matter is in the author's humble opinion a crucial process in ensuring that everyone who passes through Nagasaki University School of Medicine on their way to a professional career has had not only the required vocational medical training, but will also employ their critical thinking skills in a constantly changing professional environment.

Methods

The author introduced a commonly held belief during the course of instruction as a means of introducing the idea of critical evaluation of assumed facts. It is a common belief in Japan that the Japanese people have longer large intestines than peoples from North America and European countries. This is also a common belief among medical students- not just freshmen, but those in the final stages of their training as well. There is reasoning behind this belief that can be summarized as follows: European peoples- and by relation those in North America as well (We will call these people 'Westerners'), developed their societies and cultures while thriving on a diet mainly of meat. This nutritionally dense Western diet meant that physiologically, the gastrointestinal system could easily absorb the necessary nutrition, meaning that waste could be eliminated quickly, thus requiring only a short alimentary canal and in particular, a comparatively shorter large intestine.

Japanese peoples on the other hand, developed their societies while subsisting on a diet that was based on rice and vegetables and therefore comparatively, nutritionally poor. Because of this the digestive system of a Japanese person would need more time to absorb the requirements of the body, thereby leading to the physiological

phenomenon of the comparatively long large intestine characteristic of the Japanese people.

The author, upon explaining this phenomenon and the reasoning behind it, proposed that if they could prove this to be supported by physiological evidence, they would be relieved of their responsibility to attend any more lectures that semester and would receive full credit for that semester's course. To the author's dismay, this proposal visually elated more than one student.

The Proof

A few students presented the following proof of the long large intestine claim. This first proof was retrieved from the Yakult page from the Internet Archives (http://blog.yakult.co.jp/cho/archives/2007/04/post_40.html) Complete URLs are in the References section of this paper. Yakult is a large company that sells probiotic drinks. In the piece, the head of the board of the Hiratsuka Intestinal Hospital, Hideo Hiratsuka, says the belief is factual. He claims he can see it from his own experience and from research. Japanese colons are 2~3 meters long, but Western colons are 1.2~1.3 meters long.

A second article, also found online, was offered as proof by a student. (Mynavi Corporation, full URL in References section) On this site, they list several negative effects that a western diet will have on Japanese due to this colon-length discrepancy. They note that the reason there are so many cases of constipation in Japan is because many Japanese have switched to a Western diet. There are many other similar claims online. The author does not wish to overwhelm the reader with any more 'proof' of these dubious claims. That would beleaguer the point.

The Facts

Saunders, et. al, (1995) noted "“There was no significant difference in total colonic length comparing Western (median = 114 cm, range 68-159 cm) to Oriental (median = 111 cm, range 78-161 cm) patients.” Nagata, (2013), replicated the original 1995 and came to the same conclusion; There is no difference in colorectal length between Japanese people and people from western countries.

Discussion

In confronting learners who profess beliefs not founded in critical thinking and the process of investigating claims, the foundations of specific confirmation biases can be shaken. In continuing to introduce other, more complicated and nuanced public health issues as students progress through the years, hopefully encourages them to evolve their opinion on a variety of topics over their years of study.

One troubling observation made was the overuse and reliance on the internet, where factual publications mix freely, and are wildly outnumbered by, biased, unreliable sites on the World Wide Web. There are many opportunities to cherry pick sites with claims that suit a student's biases and folkloric, nationalistic assumptions.

As this article was being put together, the author, through introducing a certain health topic, observed that some students are still-in their latter years of study-able to set aside critical thinking when their confirmation bias is satisfied through the claims made by multiple online sites.

Students were asked to do individual research on the use, misuse, or abuse of prescription medications in Japan or elsewhere. Several students chose the topic of anti-depressant use (SSRI drugs specifically). During one student's report in class, the student noted that although SSRI use is high in Japan, it is much lower in Korea. His explanation for this was that the difference lay in the differing DNA makeup of these two populations. Specifically he noted, Japanese are genetically predisposed to being anxious and that Japanese are more anxious than other people in the world.

The student was asked to present his sources for these claims (listed under SSRI in the Reference section of this paper).

The student presented an article on the site "Rocket News!" titled "Human emotion is also decided by genes! Research shows that Asians are genetically predisposed to feel anxiety." as one credible source he used in his research. The student also presented an opinion piece in a Japanese business news aggregator article titled "Overcoming the Gene Curse."

Upon further research, the author discovered that this theory originated with a single research article reported on in *The Economist* magazine, in an article titled 'Hope from a Pill', published February 28, 2008. So far, attempts to replicate the initial findings of this article have been unsuccessful. De Neve (2012) noted that their replication attempts 'showed mixed results' and that 'more work needs to be done...'

The readiness of the student to identify a genetic difference that separated Asians from non-Asians and then leap to the assumption that Japanese genetic uniqueness is further supported by this evidence presented in class, indeed indicates a gap in at least one individuals ability to overcome a strong confirmation bias.

Clearly, there is a need to help students to be more discerning, to use their critical thinking skills, when analyzing the 'proof' offered online.

Conclusion

The author continues to employ this approach, which is still developing new ways to expose and confront unexamined biases and critical thinking shortcomings among medical students. Further study containing specific, quantitative data regarding the efficacy of this particular model is warranted. Ideally, a longitudinal analysis of Nagasaki University medical school graduates, over decades, comparing the rate of malpractice, as well as the rate of outstanding performance in a specific field of research or practice, to the profession as a whole in Japan, would perhaps indicate that this method does encourage the development of critical thinking skills among students. As the author does not expect to be around long enough to see such a complex and vast reaching investigation through to its fruition, it is up to other educators and researches to determine if such an effort should be made. In the interim, further research on the author's approach will be forthcoming.

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Relationship between Teacher Efficacy and Attitude toward Inclusive Education in Inclusive Public Elementary School

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Abstract

This study aims to understand the relation between teacher efficacy and its' dimensions with teacher attitude towards inclusive education in inclusive public elementary school. The instrument used to measure teacher efficacy is *Teacher's Sense of Efficacy Scale*, while *Multidimensional Attitude toward Inclusive Education Scale installation design (MATIES)* was used to measure the relation between teacher attitudes toward inclusive education. Participants of this study were teachers from inclusive public elementary school (N=100). Results of this study showed that there is a significant positive relation between teacher efficacy and attitude toward inclusive education. Therefore, when teachers scored high on teacher efficacy, those teachers tend to show positive attitude towards inclusive education. On the contrary, when teachers scored low on teacher efficacy, those teachers tend to show negative attitude towards inclusive education. Results of researches related to dimensions of teacher efficacy discovered a significant relationship between instructional strategies and student engagement with teacher attitude towards inclusive education in inclusive public elementary school. On the contrary, it was discovered that there was no significant relation between classroom management dimension and teacher attitude towards inclusive education in inclusive public elementary school. To improve the efficacy of teachers in inclusive public elementary school, schools can provide facilities such as teaching props, shadow teachers, or limiting the number of students in each class.

Keywords: education, teacher efficacy, teacher attitude towards inclusive education, inclusive public elementary school

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Introduction

The right to acquire education is one of the human rights in 1945 Constitution of Indonesia. Specifically, article 31 clause 1 stated that every citizen have a right to obtain education. The right to acquire education should be owned by every child, including children with special needs. To accommodate it, Indonesian government socialized the concept of inclusive education. Ministerial Decree of the Minister of National Education (*Permendiknas*) of Indonesian Republic No. 70 year 2009 article 1 stated that inclusive education is an implementation of the education system which gives all students with abnormality and possess extraordinary intelligence potential and/or talent to study or learn together in a shared environment together with other students in general.

The concept of inclusive education was realized with the existence of inclusive school, which is a school that is fully responsible for all needs of the students, teachers in that school are capable of differentiating and adapting curriculum, and learning instructions may be adapted depending on the difference of needs and ability of each and every student in the class (Jenkinson, 1997). In an inclusive school, there are two student characteristics, which are students with special needs and regular students. The incorporation of both types of students in an inclusive school may have benefits for both sides. Students with special needs will have positive view about themselves. This is because they can study together with regular students without any discrimination. Regular students will learn about differences, therefore they will develop respect and understanding of their friends with special needs (McCarty, 2006).

In Indonesia, the majority of inclusive school starts at elementary level (<http://www.bpdiksus.org>). In terms of implementation, inclusive schools are divided into two categories, which are public and private. This study is focused on the implementation of inclusive education in inclusive public elementary school. Those schools are chosen because they had not fulfilled the requirements to be inclusive schools, such as currently there are around 40 students in a class, which is too many. When categorized as an inclusive school with students with special needs, there should be only around 20 students in a class (Nugraha, 2012). To support students with special needs in class, inclusive public elementary schools still lack teaching props. Many teachers have not received training and did not know which disorder is owned by special need students in their class, which leads to confusion about how to handle them (Latief, 2009). Lack of knowledge and skills needed by teachers in inclusive public elementary schools added itself to the burden of duties carried by those teachers. On one side, teachers must work hard to fulfill the demand of their consciousness to educate their students, but on the other hand they do not have enough skills to convey subjects they taught to students with special needs (Satrio, 2015).

An example of the inability of teachers in inclusive public elementary schools on teaching students with special needs happened once at one of the inclusive public elementary school in Yogyakarta. A teacher was unable to teach both special needs and regular students at the same time. When that teacher explained a subject personally to a student with special needs, the regular students used that situation to create a commotion. On the other hand, when that teacher explained a subject to

regular students, the student with special needs was having trouble to understand the explanation because it needed to be explained personally. In the end, the teacher of that class gave up and stated his or her inability to teach both special needs and regular students at the same time (Hendradi, 2014). Because of this, that student with special needs only lasted two weeks because the school subtly expelled the student, saying that they were unable to give an optimal learning facilitation. The school suggested that the student should be transferred to a special education school (SLB), which was regarded to be an effective solution to deal with student with special needs. It may never happen if the teacher was confidence with his or her ability to convey subjects according to the needs of students in the class.

A teacher's ability is related with his or her self-efficacy. Even when teaching in a regular public school, teachers are expected to possess a high level of self-efficacy, especially in inclusive public elementary schools which contain two types of students with different characteristics. Self-efficacy is defined as one's belief of his or her ability to organize and do desired actions to achieve expected results (Bandura, 1977). When teachers possess a high level of self-efficacy, they tend to be more capable of using various teaching strategies to fulfill their students' needs. On the contrary, teachers with low self-efficacy will find it difficult to use a teaching strategy that fits their students' needs, especially those with special needs (Vaz et al., 2015).

In the context of education, self-efficacy in teachers is more known as teacher efficacy. Teacher efficacy is defined as a teacher's belief in his or her ability to organize and do actions needed to continue teaching in a particular context (Tschannen-Moran, Hoy & Hoy, 1998). Teacher efficacy has three dimensions, which are efficacy in student engagement, efficacy in instructional strategies, and efficacy in classroom management. Efficacy in student engagement described the extent of a teacher's belief to engage students in learning processes. Efficacy in instructional strategies explained a teacher's belief in delivering materials with various strategies. Efficacy in classroom management referred to a teacher's belief in organizing the condition of a class (Tschannen-Moran, Hoy & Hoy, 1998).

Tschannen-Moran, Hoy & Hoy (1998) added that teacher efficacy is obtained through four sources, which are mastery experiences, social modeling, social persuasion, and physical and emotional state. The first one and the one that influenced a teacher's efficacy the most is mastery experiences, which is a teacher's perception about performance that was obtained through experience. When teachers successfully showed a good performance, their efficacy will rise. On the contrary, when teachers experienced failure repeatedly in showing a good performance, their efficacy will decline. The second source that influenced teacher efficacy is social modeling in the form of vicarious experience, which are experiences obtained by observing other people's behavior with no need of imitating the behavior. A teacher's efficacy will rise if he or she observed another teacher with similar competence, but if the person observed failed, then his or her efficacy will decline instead. This make teachers learn effectively by observing behaviors of other teachers who taught successfully. The third source, which is social persuasion, comes in the form of feedbacks, advices, warnings, or critics from trusted people. For example, if someone superior to the teacher gave a constructive feedback, it will give a positive influence on that teacher's efficacy. The last source is teachers' physical and emotional state. For example, when a teacher is enthusiastic and happy, it is a sign that he or she felt capable to deal with

his or her students. On the other hand, stress, anxiety, or other negative emotions will give an idea that he or she lacks abilities and skills in teaching (Tschannen-Moran, Hoy & Hoy, 1998).

Basically, teacher efficacy makes teachers more open to new ideas and have the desire to experiment with new methods in order to adapt with their students' needs. Brookover and Lezotte (1979, in Guskey & Passaro, 1994) stated that teacher efficacy is capable of making teachers more responsible towards students' learning process in class. In accordance, Tschannen-Moran, Hoy and Hoy (1998) stated that teacher efficacy also influenced the amount of effort teachers will do to achieve desired results and increase teachers' aspiration. In other words, teacher efficacy may change their views and behaviors that are not separate from their attitude.

Regarding attitude, Leyser and Tappendorf (2001) stated that teacher attitude is a key factor that portrays a school's readiness in implementing inclusive education because it may influence the outcome of inclusive education. Teacher's attitude towards inclusive education is defined as the tendency to respond cognitively, affectively, and conatively towards inclusive education (Mahat, 2008). Attitude is made up of three components. The first one is cognitive component, which is the evaluation of an individual's opinion (sure/unsure) towards an object. The second one is affective component, which are emotional responses (like/dislike) towards an object. The last one is conative component, which is a behavioral tendency in the form of observable action or response towards an object (Mahat, 2008). All three components are individual tendencies in responding towards and object or situation.

Nguyet and Ha (2010) stated that positive teacher attitude is a predictor of inclusive education's success. Examples may be seen in students' social life and achievements, both regular and students with special needs (Hunt et al., 1993). Teachers with positive attitude toward inclusive education are regarded to have more confidence on their ability to support their students and are capable of adapting teaching materials and procedures in class to accommodate their students' needs (Campbell, Gilmore, & Cuskelly, 2003). Looking from a student with special needs, teacher attitude also strongly influence the success and failure of that student (Bahar, 2004). Avramidis, Bayliss, and Burden (2000) added teachers with positive attitude are responsible and create clear goals. Therefore, positive teacher attitude may affect both teachers and students, both regular and students with special needs.

On the contrary, if a teacher showed negative attitude towards inclusive education, he or she will feel not prepared to accept students with special need. The teacher will see the student as an obstacle, which is a student that hampers teacher's effectiveness in when giving instructions in class. The teacher will feel frustrated because most of his or her time was spent for regular students, and it takes even more time to accommodate a student with special needs (Horne & Timmons, 2009). Cassady (2011) also stated that teachers with negative attitude towards inclusive education and have no desire to teach any students with special needs in class tend to be reluctant to provide supports needed by that student. Therefore, teachers' attitude towards inclusive education can be regarded as an important part to be identified and nurtured, remembering that it may influence teachers' performance, and success of both regular and students with special needs in their class (Cassady, 2011). Regarding the capability of teacher efficacy in changing teachers' views and behaviors that are not

separate from their attitude towards inclusive education, researcher wanted to know the relation between teacher efficacy and attitude towards inclusive education in inclusive public elementary school.

The instrument used for this study is *Teachers' Sense of Efficacy Scale* to measure teacher efficacy which was developed by Tschannen-Moran, Hoy and Hoy (1998) and was adapted by Mariyati (2012). To measure teacher's attitude towards inclusive education, *Multidimensional Attitude toward Inclusive Education Scale* Indonesian Version (MATIES-VI) which was developed by Mahat (2008) and was adapted by Sihombing (2015) was used. Both instruments were used to see and understand the relation between teacher efficacy and attitude towards inclusive education in inclusive public elementary schools in South Jakarta and Depok.

Literature Review

In general, attitude is defined as the tendency to respond positively or negatively towards an object, person, institution, or event (Ajzen, 2005). Attitude is made up of three components. The first one is cognitive component, which is the evaluation of an individual's opinion (sure/unsure) towards an object. The second one is affective component, which are emotional responses (like/dislike) towards an object. The last one is conative component, which is a behavioral tendency in the form of observable action or response towards an object. In this study, the object of the attitude is inclusive education. Specifically, Mahat (2008) defined attitude towards inclusive education as the tendency to respond cognitively, affectively, or conatively towards inclusive education. Researcher chose a definition by Mahat (2008) to define teacher's attitude towards inclusive education because it specifically described the definition of attitude in relation with the context of inclusive education. From the definition, teachers' attitude towards inclusive education may be influenced by various factors, both demographically and psychologically, from the teachers' inside.

Factors influencing teacher's attitude towards inclusive education are gender, age, teaching experience, trainings received, contact with children with special needs, and self-efficacy. In this study, the chosen factor was self-efficacy possessed by a teacher. Self-efficacy is related with amount of effort and results achieved by the teacher so it will influence students in his or her class, both regular and students with special needs. In educational context, self-efficacy possessed by a teacher is known as teacher efficacy. Gender, age, teaching experience, trainings received, and contact with children with special needs were used as demographical data in this study.

It is not possible to talk about teacher efficacy separately from self-efficacy theory developed by Bandura (1977). Tschannen-Moran, Hoy and Hoy (1998) developed a new construct based on self-efficacy theory specifically for teacher job context. The construct was named teacher efficacy, which is a teacher's belief in his or her ability to organize and do actions needed to continue teaching in a particular context (Tschannen-Moran, Hoy & Hoy, 1998). Guskey and Passaro (1994) added that teacher efficacy is a teacher's belief in his or her ability to persuade students to cooperate and learn, although there is a difficult or unmotivated student. Teacher efficacy possessed by a teacher may also influence the performance of his or her student (Berman, McLaughlin, Bass, Pauly, & Zellman, 1997, in Tschannen-Moran, Hoy & Hoy, 1998). Teacher efficacy is related with teacher's behavior in class and

influenced effort given in teaching, desired results, and aspiration level. In this study, the definition of teacher efficacy used is the definition by Tschannen-Moran, Hoy and Hoy (1998) because it specifically described teacher efficacy and the instrument used in this study was also referred from them.

Teacher efficacy has three dimensions, which are efficacy in student engagement, efficacy in instructional strategies, and efficacy in classroom management. Efficacy in student engagement described the extent of a teacher's belief to engage students in learning processes. Efficacy in instructional strategies explained a teacher's belief in delivering materials with various strategies. Efficacy in classroom management referred to a teacher's belief in organizing the condition of a class (Tschannen-Moran, Hoy & Hoy, 1998).

Methodology and methods

Samples from this study are teachers who taught at inclusive public elementary school, classroom and subject teachers, teachers who taught students with special needs or have any students with special needs in their class but not a shadow teacher in inclusive public elementary school.

Sampling technique used in this study was non probability sampling. Specifically, this study used convenience sampling, which means samples were chosen based on their availability and willingness but still based on criteria specified (Gravetter & Forzano, 2009).

Data retrieval was done to eight inclusive public elementary schools in Jakarta and Depok. Those schools were SDN Bojongsari 01, SDN Cijantung 09, SDN Depok Baru 08, SDN Gedong 03, SDN Gedong 12, Cilangkap 02, Cisalak 03, SDN Palsi Gunung and SDN Susukan 01. The study was done by distributing questionnaires to teachers of inclusive public elementary schools and asking if they were willing to fill the questionnaire. There were 115 questionnaires distributed, but only 100 were collected. From these, researcher obtained 100 participants who were made up of 22 males and 78 females.

Discussion

The result of the study showed a significant correlation between teacher efficacy and teacher attitude towards inclusive education in inclusive public elementary school. Basically, self efficacy is one's belief to determine what will someone do, how much effort will be given, and the tenacity when dealing with obstacles (Bandura, 1977). Bandura (1977) also added that one's belief of his or her own abilities will strongly influence behavior, motivation, and capable of predicting that individual's success or failure. In relation with teaching and learning process, teachers with high self efficacy are willing to use various teaching methods to fulfill their students' needs (Patrick, 1993, in Shaukat, Sharma & Furlonger, 2013). Vaz et al. (2015) added that teachers with high self efficacy tend to be more capable of using various teaching methods to fulfill their students' needs. On the contrary, teachers with low self efficacy will find it difficult to use teaching strategies that fit their students' needs, especially students with special needs.

The result of this study is in accordance with the findings of Tschannen-Moran, Hoy & Hoy (1998) which showed that teacher efficacy is related with teacher's behavior in class and may influence effort given in teaching, desired results, and aspiration level. It means that teachers with high teacher efficacy will try to fulfill the needs of all students in their class, understanding differences between each student, and have a goal of making students capable of following learning process in class. Teacher efficacy push teachers to be more open with new ideas and the desire to experiment with new methods to fit their students' needs, therefore affecting the performance of students in their class (Berman, McLaughlin, Bass, Pauly, & Zellman 1997; Tschannen-Moran, Hoy & Hoy, 1998).

Based on three dimensions in teacher efficacy it is known that two dimensions, which were efficacy in student engagement and efficacy in instructional strategies had significant correlation with attitude towards inclusive education. It is related with two student characteristics in the class, which were regular students and students with special needs. This difference in characteristics pushed teachers to use various so that every student understands materials given by the teacher. This is in accordance with Santrock (2008) who stated a teacher should have various teaching strategies instead of using 'one size fits all' principle, which meant the usage of only a single strategy to teach.

Therefore, teachers who provide supports towards their students and are capable of adapting subjects appropriately with their students' needs tend to have positive attitude towards inclusive education (Campbell, Gilmore, & Cuskelly, 2003). Santrock (2008) added that teachers who had a variety of student characteristics in their class must be able to invent various strategies in order to fulfill all of their students' needs. When teachers are able to adapt materials and use various strategies for all students in their class, it will get them involved during the learning process. Teachers were also sure that teaching and learning process in class were not a one-way process from teachers, but a two-way process from both students and teachers (Tschannen-Moran, Hoy & Hoy, 1998). This will affect students' achievement in class and teacher's satisfaction when their students are actively involved in class.

A dimension that was not significantly correlated with attitude towards inclusive education was efficacy in classroom management. This may be caused by teachers' state who felt unable to handle and watch over every student in their class, especially students with special needs, therefore they needed the assistance of *guru pendamping khusus* (GPK), or shadow teachers. According to Mastiyah (2015), GPK are teachers who were instructed to accompany students with special needs in learning and teaching process in regular classes that were qualified in special education or already received training regarding inclusive school management. GPK were instructed to bridge difficulties met by students with special needs in learning process (Masyitah, 2015). The inability of teachers in inclusive public elementary school to handle their students in class was because there were too many students in a class, which were around 40 students. Ideally, the number of students in a class on elementary school level is 20-25 students (Santrock, 2008). Too many students tend to obstruct teacher to reach out to their students in class. For example, it is difficult for teachers to explain and divide their attention when one of their students find difficulties in a subject, especially with teachers in inclusive schools with both regular and students with special needs in their class. As stated by Forlin et al. (2009), the number of

students in class may affect the implementation of inclusive education. Therefore, the number of students in class may influence teacher efficacy related with efficacy in classroom management dimension.

From methodological point of view, this study had several limitation related with the process of finding schools to obtain samples, instruments, and the administration process of the instruments. During the process of finding schools, researcher looked for lists of inclusive public elementary school from search engines and acquired school data from the official website of the education board of Jakarta and Depok. Some of the schools obtained from those lists were invalid and not yet updated. For example, on the website it was stated that school Y was an inclusive public elementary school, but when visited the headmaster stated that it was not an inclusive school because there was no student with special needs in it. Then, researcher obtained information from schools that were valid and already implemented inclusive education for a long time, and was told that school Z was an inclusive elementary school, but was not listed in the official website of education board. It made researcher found it difficult to accurately find name of schools that were listed as inclusive public elementary school.

In terms of instruments, there were words that were not familiar in everyday dialogue in Indonesia such as the word 'frustration'. Other than that, one of the items that stated "*Saya yakin bahwa siswa berkebutuhan khusus harus belajar di sekolah khusus (SLB), sehingga mereka tidak dikucilkan di sekolah reguler (umum)*" is too strong, therefore it may create a 'faking good' response. Statements on every item may trigger social desirability, which was the tendency of respondents to answer questions according to social norms (Fisher, 1993). It may be a tendency to choose an answer that was considered the best or the worst.

Finally, in the process of administering instruments, researcher always tried to be able to accompany participants in filling the questionnaire, but there were participants from some schools who could not be accompanied during the process. It happened because the school was busy preparing the National Exam. The administration process were going to be conducted after an internal school meeting, or teachers who were going to be samples were not present at that time. It made several questionnaires missed their demographical data and some items were left unfulfilled.

Conclusions

Based on the result of the analysis done to answer the main research problems, it may be concluded that there were a correlation between teacher efficacy and teacher attitude towards inclusive education. Specifically, teacher efficacy and teacher attitude towards inclusive education in inclusive public elementary school had significant positive correlation. It showed that teachers with high teacher efficacy tend to show positive attitude towards inclusive education. On the contrary, teacher with low teacher efficacy tend to show negative attitude towards inclusive education.

Then, to answer the second question related with teacher efficacy dimensions, it may be concluded that there was a correlation between efficacy in student engagement dimension and teacher attitude towards inclusive education in inclusive public elementary school. It showed that teachers with high efficacy in student engagement

tend to show positive attitude towards inclusive education. On the contrary, teacher with low efficacy in student engagement tend to show negative attitude towards inclusive education.

The next finding concluded that there was a correlation between efficacy in instructional strategies dimension and teacher attitude towards inclusive education in inclusive public elementary school. It showed that teachers with high efficacy in instructional strategies tend to show positive attitude towards inclusive education. On the contrary, teacher with low efficacy in instructional strategies tend to show negative attitude towards inclusive education. Finally, it was found that there was no correlation between efficacy in classroom management dimension and inclusive education in inclusive public elementary school.



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The logo for the International Association for Frontiers in Education (iafor) is centered on the page. It features the word "iafor" in a light blue, lowercase, sans-serif font. The text is enclosed within a circular graphic composed of two concentric, slightly offset arcs. The outer arc is a light blue color, and the inner arc is a light red color, creating a ring-like effect around the text.



Impact of Posting Teaching Content Online in a French Course for Beginners

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Abstract

Nowadays, a growing number of instructors use information and communications technology (ICT) inside and outside the classroom to teach all kinds of programs, including language courses. The instructor used a traditional way of teaching (lecturing, text-book, conversation, no technology in the classroom, no social network) during the first semester of academic year 2013-2014 (September-January) in a French course for beginners in a Taiwan public university. During the second semester (February-June 2014), the teacher added the use of multimedia and Facebook to teach the same students. They joined a Facebook learning group, which they could access anytime during the second semester; they could notably post, view posts, like, and comment in French and sometimes English (no Chinese). This study analyzes data from the first and second semester to measure students' learning progress and how the group might influence their motivation and change their behavior. Students were expected not only to improve their reading and writing skills, but to increase their knowledge of French culture.

Keywords: Facebook; French I; Learning performance; educational tool; Taiwan.

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Introduction

Mark Zuckerberg famously launched Facebook, the world's most popular online social networking service, with his college roommates and fellow students, at Harvard University in 2004. As of March 2013, Facebook claimed having 1.1 billion monthly active users (Facebook, 2013). In April 2016, the number of active users grew to 1,590 billion (Statista, 2016). According to Facebook, the number of monthly active users (MAUs) was 1.71 billion as of June 30, 2016 (Facebook, 2016). Internet World Stats (2016, a and b) estimates there were almost 98 million French speaking Internet users in 2015, including 52 million having a Facebook account. As to the Internet users in Taiwan in June 2016, it was estimated there were 19.6 million (including 18 million Facebook users) out of a population of 23.4 million.

This paper focuses on an optional course of French for beginners open to all students at a public university in Taichung, Taiwan. This study compares data for 32 students who took the class during two consecutive semesters, from September 2013 to June 2014. The data is based on information collected on Facebook during the second semester and on the university official questionnaires completed by students at the end of the 2 semesters.

The instructor used a traditional way of teaching (lecturing, text-book, conversation, no technology in the classroom, no social network) during the first semester of academic year 2013-2014 (September-January). During the second semester (February-June 2014), the teacher added the use of multimedia and Facebook to teach to the same students. They joined a Facebook "secret group", that is a group in which only students from the class can join, post, view posts, like, and comment. The objective was to compare the online behavior, motivation, learning satisfaction, approbation of the teaching, and learning progress at the end of the first and of the second semester. Students were expected not only to improve their reading and writing skills, but to increase their knowledge of French culture.

Literature review

The launch of Facebook in 2004 means that specific literature only spans 12 years. However, because of the immense success of the online platform, a large amount of academic studies have been published, discussing various topics, such as the impact of Facebook on health (Yeh et al., 2008; Steinfield et al., 2008; Lin et al., 2011), or the social network relationships in computer-supported collaborative learning (Ryymin, Palonen, & Hakkarainen, 2008). But according to Aydin (2012), "there has been a serious lack of research on Facebook's use as an educational resource." Yu et al. (2010) already noticed that "the pedagogical impacts on university students of the social networking in general and the emerging online social networking behavior in particular have obtained scant attention in the literature."

Hwang et al. (2004) demonstrated that college students' social networking with their peers and instructors may help them increase their information and knowledge, and as a result improve their performance. Wang & Wu (2008) showed that in a Taiwan research university, undergraduates interaction with their peers to get feedback helped them improve their learning performance.

Various studies have demonstrated the use of Facebook as an English Language Training (ELT) supportive tool, such as Baran (2010), Anderson (2009), and Greenhow (2011); social media and notably Facebook provide students with extracurricular content resources (Bahner et al., 2012; Pilgrim & Bledsoe, 2011).

Shams (2014) analyzed the effectiveness and impact of Facebook in English language classrooms in Bangladesh; according to her study, students with poorer English skills were more motivated when using Facebook during the class. Direct contact between the instructor and the students increased the positive influence of social media. Manca and Ranieri (2013) also showed that students did not wish social media to be a unique teaching tool for learning.

Bishop (2006) already concluded that “online communities are increasingly becoming an accepted part of the lives of Internet users, serving to fulfill their desires to interact with and help others.” Some studies have been published in this direction, notably on the impact of opening learning groups on Facebook. However, there is very little research in Taiwan on the impact of Facebook learning groups on students’ motivation and performance.

Çoklar (2012) and Montoneri (2015) showed that Facebook had an impact on students’ motivation. Montoneri (2015) created a Facebook group for a class of European Literature (option, 3 hours/week, junior students) in order to share teaching material related to the class on a weekly basis. The course was attended by English majors in a private university in Taichung, Taiwan. The study notably analyzed students’ motivation, progress in learning and improvement of the instructor’s evaluation by students. It appeared that students regularly and constantly participated to the group until the end of the second semester. Teacher evaluation was higher and the average students’ final score progressed at the end of the second semester.

Methodology

The data source

The study case is a public university founded in 1919 as an academy in Taipei; the academy later moved to Taichung in 1943 and became a national university in 1971. The data comes from the university’s online student rating system, which provides student feedback to professors at the end of the first semester (September 2013-January 2014) and of the second semester (February-June 2014). Participants were studying French I as a 3 hour/week option at the Language Center and were majors from a large and various number of departments, including Chinese, Marketing, History, Business. The characteristics of the data source and research object are as follows:

1. French I is an optional, three-credit course open to all the students of the university. This is a course for beginners. Students had never studied French before, but they all understand English.
2. The instructor used English to teach during the class because students did not know French yet. The text-book, published by the instructor in 2009, is written in French and Chinese.

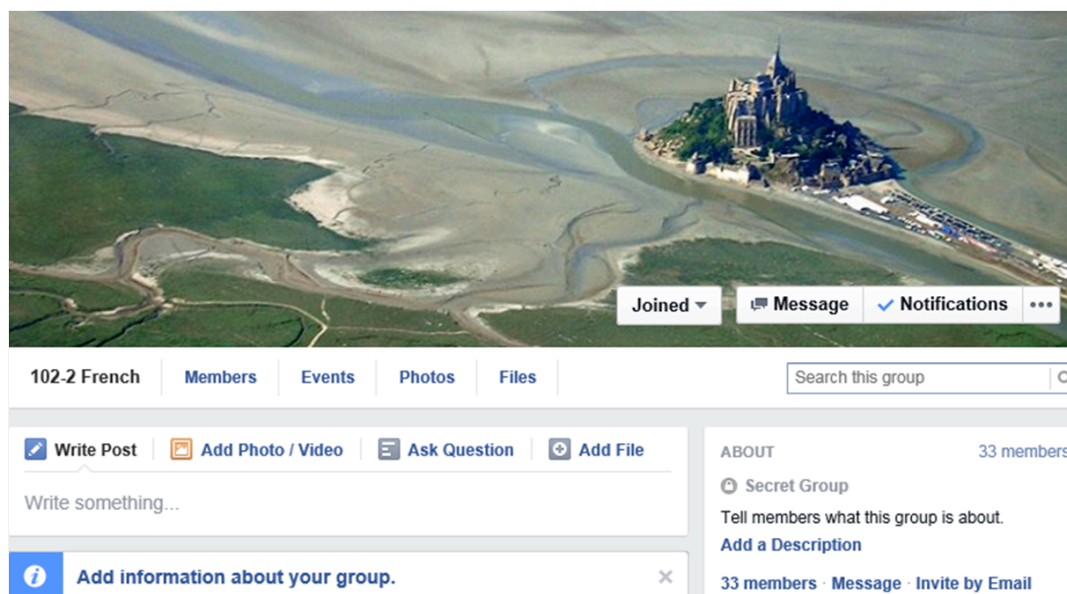


Picture 1 : Montoneri, Bernard, Huang, Shio-Ling, “無師自通說法文 I”, Second Edition, 文景書局有限公司, ISBN: 978-957-9489-87-4 (平裝附光碟片), 西元 2009 年 6 月出版.

3. This study compares data for students who took the class during both the first and the second semesters. Students who were failed, who dropped or who had to leave at the end of the first semester (so far, exchange students from Mainland China can only study for one semester in Taiwan) or who joined later during the second semester were excluded from this research.
4. Thirty-two students learned French I during the two consecutive semesters, that is, from September 2013 to June 2014.
5. The data is based on questionnaires divided in 2 parts: Part 1 concerns students' learning behavior (2 questions) and part 2 the degree of approbation concerning the teaching. The questionnaires are filled out by the students at the end of each semester. Each question is rated from one (strongly disagree) to five (strongly agree).
6. All the students are required by the university to fill out the questionnaires online if they want their grades to be validated. The study progresses with the assumption that all students participated.
7. All of the 32 students in this study had a Facebook account at the beginning of the second semester. They joined the Facebook secret group created by the instructor.

Empirical study

The Facebook secret group for French I was founded and open on February 27, 2014. All the students registered in the class joined quickly thereafter and the first post was uploaded by the teacher on February 25, 2014 (Post 1); the last post was uploaded June 19, 2014 (Post 24).



Picture 2 : French I secret group, 33 members, from class 102-2 French (February-June 2014).

There were 33 members in the group; including the students and the instructor. The group is “secret” in the sense that only the students who joined the class could participate, that is join, read the instructor’s posts, post, like, comment and share posts with the other members of the group. Picture 2 shows the cover picture for the Facebook secret group : Mont Saint Michel, Normandie, France.

Bernard Meng
March 22

Post 13 mp
Tenses in French.
Website for verbs:
<http://leconjugueur.lefigaro.fr/conjugaison/verbe/aimer.html>

	L'Imparfait	Le Présent	Le Futur	Le Conditionnel
Take the 'base'	part of the present tense	Cross off 'ER', 'IR', 'RE'	Take the infinitive of the verb	Take the infinitive of the verb
Add	Cross off '-one'	Add -ai -as -a -ons -ez -ent	Add -ai -as -a -ons -ez -ent	Add -ais -ais -ait -ais -ais -ait
is used to describe repeated, unfinished or interrupted actions in the past. Also used for descriptions		is used to describe actions that are happening now or happen regularly	is used for all future actions.	is used when a condition exists, it does some

Like · Comment

and 5 others like this. Seen by 29

Picture 3 : Post 13 uploaded by the instructor

I use my French given name and Chinese family name in Chinese pinyin (Bernard Meng). Post 13 includes two tables and one hyperlink. This post was uploaded on March 22, 2014; it was viewed by 29 students and 8 students liked it (their names are hidden for the sake of privacy and anonymity). The purpose of this post is to help students learn verb conjugation. The table on the left shows how to build French tenses. For example, most verbs at present tense finish by –e at the first person (je mange), –es at the second singular person (tu manges), etc...The table on the right presents the conjugation in the present tense of the two most useful verbs in French: to have (avoir) and to be (être). The hyperlink is a website created by French newspaper *Le Figaro* which provides conjugation of all French verbs.



Picture 4 : Post 16 uploaded by the instructor.

Picture 4 includes hyperlinks to translation websites, French to English and French to Chinese. One link gives students access to verb conjugation and an online dictionary. This post was uploaded on April 17, 2014; it was viewed by 28 students and 8 students liked it. This type of post helps students find useful online learning material they can view anytime, during the class (phones are allowed during the classroom for educational purpose) as well as outside the class. The instructor noticed that students check the group as soon as there is a new post; however, they are more likely to check in the morning, before the class.



Picture 5 : Post 18 uploaded by the instructor.

Post 18 (Please see picture 5) was quite successful as it was viewed by 28 students and liked by 11. To motivate students and to interest them to French language and culture, I introduced the story of *The Count of Monte Cristo* by Alexandre Dumas (1844). Students watched the movie during the class and I gave them detailed information about the writer, the story as well as the infamous Château d'If, situated about one mile offshore in the Bay of Marseille in southeastern France. Students' interest increased as I posted my own pictures of the château taken in July 2013. "If" (the French word for the Yew tree) used to be an ideal escape-proof prison, very much like the island of Alcatraz in California. It became one of the most feared and notorious jails in France. It is now opened to the public. Ironically, one of the boats which carry tourists to the island was named after the hero of the novel, "Edmond Dantès".



Picture 6 : Post 20 uploaded by the instructor.

Picture 6 introduces French culture, in particular Versailles Palace and related stories, such as *The Man in the Iron Mask* with Leonardo DiCaprio (1998) and *Marie Antoinette* with Kirsten Dunst (2006). This post was uploaded on May 15, 2014; it was viewed by 28 students and 7 students liked it. The French for beginners course is 3 hours long. During the third hour, I generally introduces French culture, including French touristic places, cinema, literature, music. By the end of the second semester, students were able to read in the French extracts from various novels and tales, including *The Little Prince* and *Beauty and the Beast*.

Analysis of various types of teacher's posts and of the timing of posts

In a previous study on Facebook as an educational tool (Montoneri, 2014), I defined six types of posts, such as quotation of texts (quote), PowerPoint files (ppt), pictures or photos (photo), information of movies (movie) and music (song) adapted from books, and external links (link). I demonstrated that students showed little interest toward PowerPoint presentations posted in the group in a class of European Literature.

In the present study, I focus on 4 types of posts: pictures or photos ('photo'), that is the sharing of pictures taken by the instructor and photos found on Internet; 'film' means everything related to French cinema; 'song' means the sharing of French songs found on Youtube and information about French singers; 'link' means more practical information about French grammar, syntax, vocabulary, and pronunciation. Students learned during the class and in the Facebook group about the influence of French Literature and the numerous adaptations on screen of French novels, notably in Hollywood (*Les Misérables*, *The Phantom of the Opera*, *The Count of Monte Cristo*, *The Little Prince*, and so many others). Table 1 and Figure 1 show that almost all the students in the group viewed all the teacher's posts. They were obviously more attracted by the posts with pictures (5.2), and information concerning French cinema (5.0); surprisingly, students were less interested by posts on French music (2.3). The posts called "link" were quite appreciated (4.5), because they gave complementary information about French vocabulary and various points of grammar studied during the class.

Type of posts	Number of views	Number of likes
photo	28.6	5.2
film	29.0	5.0
song ("chanson")	28.7	2.3
link ("lien")	28.5	4.5

Table 1 : Average number of views and likes for various types of posts.

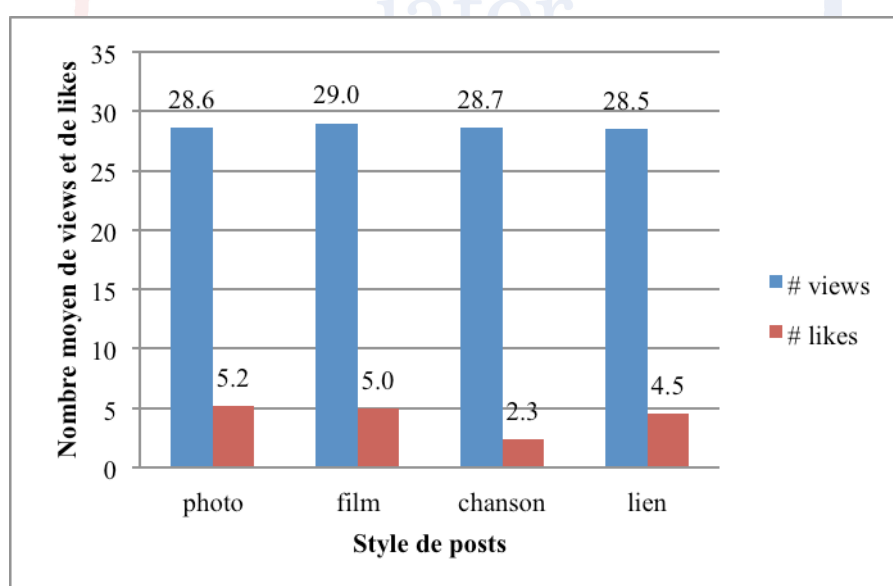


Figure 1 : Comparison of various types of posts.

Posts' timing: at what time of the day posts might be more successful?

It might be interesting and useful for teachers to have some insight into students' online behavior, which may of course vary from country to country. According to Pring (2012), almost 50% of 18-34 year olds check Facebook when they wake up – 28% before even getting out of bed. Nowadays, it seems that students in Taiwan are online day and night. However, in my experience, it seems that posts uploaded in the

morning before the class might have more chance to be viewed and by a larger number of students. The time of the week that would have the lowest success rate or impact would be on Sunday morning, very early.

Students' behavior is interesting here and a little difficult to analyze as each student had his or her own problems and deadlines. This course was an option for beginners in French. It is impressive enough that students would spend so much time for a 3 hour class when they were so busy with their major. Moreover, none of the students in the group belonged to the department of foreign languages. Seven were Chinese majors; the other students did not belong to a department of languages. We can see in Table 2 and Figure 2 that some students were highly motivated; they took the habit of viewing and liking posts as soon as they got uploaded. Other students tended to go online some time later and to view many posts at once. As people who regularly use social media might suspect, posts are viewed the most just after they are uploaded, that is in the next 24 hours. This study demonstrates the overwhelming importance of timing. People react very quickly and almost immediately when information is posted online. However, students who did not have the opportunity or the time to view a post so quickly (exams in other courses, assignments, school activities, part-time job...) still came back to check previous posts. As a result, one month later, some students were still viewing older posts. With the exception of post 1 on week 2, all the other posts from week 3 to week 14 were viewed mostly within a day after posting (in red, Figure 2).

Time* \ Week	2	3	4	5	7	9	10	11	12	13	14
1 day	2.0	11.0	15.0	11.0	10.0	21.0	19.0	16.0	13.0	12.0	12.0
2-3 days	8.0	2.7	0.0	0.0	1.0	0.0	0.0	1.0	3.0	2.0	2.0
4 days-1 week	8.0	7.3	4.0	4.0	8.0	0.0	1.0	1.0	2.0	3.0	3.0
1-2 weeks	6.1	1.0	0.0	1.5	7.0	0.0	0.0	1.0	0.0	1.0	5.0
3-4 weeks	0.7	1.0	4.0	9.0	1.0	0.0	0.0	2.0	4.0	5.0	6.0
1 month~	4.1	6.0	6.0	3.5	2.0	7.0	8.0	7.0	6.0	5.0	0.0
Proportion for the first week (%)	29.0	29.0	29.0	29.0	29.0	28.0	28.0	28.0	28.0	28.0	28.0
Proportion the two first weeks (%)	62%	72%	66%	52%	66%	75%	71%	64%	64%	61%	61%
Proportion for the first month (%)	83%	76%	66%	57%	90%	75%	71%	68%	64%	64%	79%

* "1 day" means that students saw a post within the next 24 hours after the upload of the post, "1 month~" means after a month and more.

Table 2 : Average number of views and likes for various types of posts.

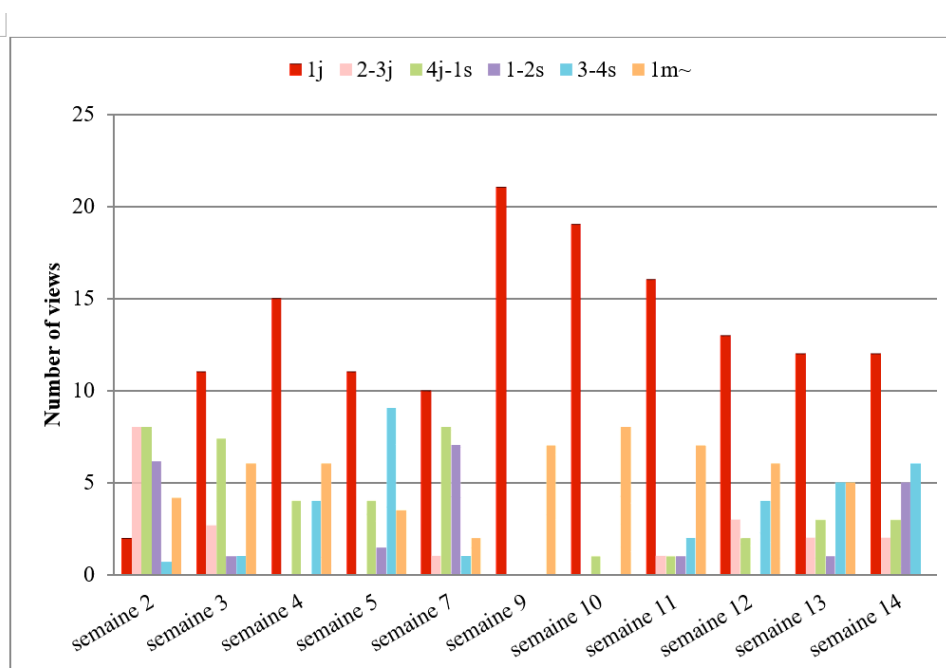


Figure 2 : Views of weekly posts and timing

* “semaine” means week in French, j means “jour” means number of days day; “1s” means one semaine or week and “1m”, one mois or month.

Analysis of teacher’s evaluation

Table 3 shows students evaluation of the instructor for two consecutive semesters. The questionnaires are divided in 2 parts: Part 1 concerns students’ learning behavior (2 questions) and part 2 the degree of approbation concerning the teaching. The questionnaires are in Chinese. They have been translated into English by the instructor and author of this study.

S1 represents the amount of time students believed they were absent or late during the 2 semesters, from never absent to absent more than 19 hours during each semester. There is a -6.43% progress between the first and second semester (from 1.71 to 1.6). It means that students were less absent or late during the second semester. To decrease absenteeism is not easy. Some students are often late early in the morning. Our class was 3 hour long, from 9 am to 12. Using Facebook seemed to have motivated some students to be on time and to attend the class more often. The instructor also noticed that when some students were late or absent, they took the habit of sending a message on Facebook before the class (asking for a sick leave for example).

The amount of work represented by the score of S2 decreased from 2.5 to 2.2 (-12.0%). The course during the second semester became more demanding (workload, difficulty of the lessons) and more severe (notably concerning the scoring); as a result, students average scores were relatively lower. They were able to progress and maintain a certain level, despite the fact that they had the impression they needed less time and effort to progress in French. Learning the basics in French (ABC, pronunciation, numbers, gender of nouns, verb conjugation, accents and liaisons)

requires a fair amount of hard work at the beginning. Once they learned and assimilated the rules, students needed less effort to speak and write in French. By the end of the second semester, they were able to read extracts from French Literature. This is the first time the instructor could get beginners to read literature in French during the class.

Moreover, despite the fact that students' scores got lower during the second semester, the instructor's evaluation got higher (average score T1 to T12: 4.08 to 4.34 from the first to the second semester; 6.37% increase), which shows that scores and approbation of the teaching are not related, in part because students felt their grades were "justified and fair" (T10: first semester 4.18; second semester 4.33; 3.59% increase).

T2 (the teacher speaks clearly and is coherent) progressed a lot at the end of the second semester. Additional explanation and online feedback helped students better understand the instructor's lecture during the class. Perhaps, because students made progress in both French and English during the academic year, they could more "clearly" understand the teacher. It is noteworthy that the class was teaching French using English to Chinese students who are not majoring in English. It takes tremendous effort to learn a foreign language, French through the medium of another foreign language, English.

T5 (the content of the educational material is informative) is very important in relation to the use of Facebook. As we saw earlier in this paper, the instructor added a large number of posts about French culture which were quite successful. The 8.37% increase concerning this question is an important encouragement for teachers using social network during and outside the classroom. Students seemed to appreciate the additional amount of information and course content. According to the detailed data, more students appreciated teacher's open attitude to communicate with them online during the second semester.

T7 ("the instructor is available to help students and to guide them to solve problems") is interesting. Facebook concretely helped students in their perception that the teacher was helping them, during the class as well as outside the classroom. They could send messages and ask questions any time. They had therefore more opportunities to practice French and more feedback from the teacher. Many students wrote short texts in French, asking the instructor to correct them (even during the weekend, which was also more demanding for the teacher, increasing his workload).

T8 (The instructor is rarely absent or late with no reason): this shows that there is a part of subjectivity in the way students answer to the questions. Did some students feel the teacher was sometimes absent without excuse? Well, it never happened during the entire academic year. Shouldn't the score be higher?

Part 1 : Students' learning behavior.

Questions \ Period	Semester 1	Semester 2 with Facebook	Progress (%)
S1. This semester, after the dropping out period, for this course, circumstances of absence (including being late, leaving the class early, authorizations of absence and absenteeism) are : 1. never absent, 2. absent 1-6 hours, 3. absent 7-12 hours, 4. 13-18 hours, 5. absent more than 19 hours.	1.71	1.6	-6.43%
S2. This semester, I worked for this course an average per week after school of about: 1. Less than an hour, 2. between 1-2 hours, 3. between 2-3 hours, 4. between 3-4 hours, 5. More than 4 hours.	2.5	2.2	-12.0%

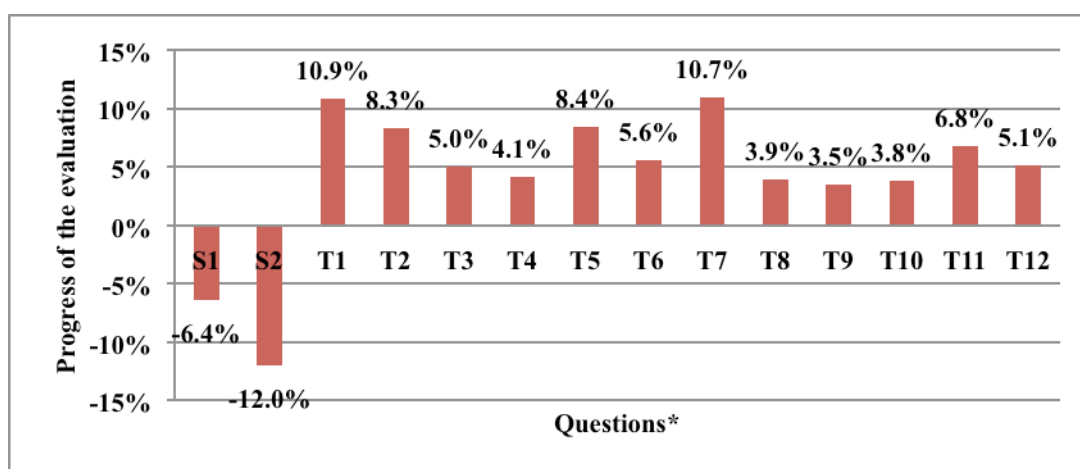
Part 2 : Degree of approbation concerning the teaching (1 strongly disagree, 5 strongly agree).

Questions \ Period	Semester 1	Semester 2 with Facebook	Progress (%)
T1. The instructor at the beginning of the semester can explain clearly the content of the syllabus for this course	4.03	4.47	10.92%
T2. The teacher speaks clearly and is coherent	3.94	4.27	8.38%
T3. The instructor's teaching methods have helped me to learn	4	4.2	5.00%
T4. Weekly progress for this course is appropriate	3.97	4.13	4.03%
T5. The content of the educational material is informative	4.06	4.4	8.37%
T6. The instructor is highly enthusiastic in the teaching process	4.29	4.53	5.59%
T7. The instructor is available to help students and to guide them to solve problems	4.09	4.53	10.76%
T8. The instructor is rarely absent or late with no reason	4.24	4.4	3.77%
T9. The scoring method can reasonably reflect students' learning results	4.06	4.2	3.45%
T10. Until now, students' grades are justified and fair.	4.18	4.33	3.59%
T11. Until now, the instructor can immediately provide the results of the evaluation for each student.	4.06	4.33	6.65%

T12. Overall, the results concerning the teaching of this course are good	4.06	4.27	5.17%
Average score T1 to T12	4.08	4.34	6.37%

Table 3 : Teacher evaluation at the end of the first and second semester

Figure 3 below highlights the progress made between the first and second semester. Concerning part 2 of the questionnaires, it indicates improvement for all of the questions from T1 to T12; T1 and T7 show the highest progress (10.92% and 10.76% respectively). The progress of question 3 and 6 implies that the posts provided on Facebook gave extra information, which helped students to better understand the curriculum content.



*: S1~S2 represent the evolution of students' learning behavior, T1~T12 represent the evolution of the degree of approbation concerning the teaching of this course

Figure 3 : Progress of the evaluation for the second semester after using Facebook

Conclusion

Facebook can be a useful complementary educational tool for teachers who wish to improve the presentation and organization of their courses. They play the roles of instructor, group administrator and group member; this situation gives them the opportunity to observe and analyze students' improvement, their motivation, their behavior, and their needs. They may do real-time adjustments and have a better relationship with their students, who could have one more way to communicate with their instructor, including outside of the class. This way of teaching is obviously more demanding and time-consuming, but it is worth it, as students can see their level in French progress faster while using online technology and social networking.

Suggestions for future use of Facebook as a language learning tool

- We saw that Facebook allows instructors to create groups that are easy to open and to manage. Teachers can collect data to do research, notably concerning the impact of Facebook on their students' motivation, learning progress, behavior, tastes, communication and language skills.
- Facebook might help the instructor share his or her own teaching material and also find new teaching material online (flashcards, drawings, tables and figures) which can be viewed by students anytime, anywhere, during and outside the classroom.
- Students become more engaged in the learning process, further studies could encourage students to be more active in the group, that is, to post and to share their classmates' posts, to comment posts in the language they study, to share their experience and what they know about the country and language they study.
- Facebook may help improve the relationship and communication between the instructor and the students. Shy students can also have another way to communicate with their teacher. Taiwanese students are quite shy and rarely ask questions during the class. They might feel more comfortable asking questions online about things they did not understand during the lecture.
- Facebook can be a useful tool to schedule events and exams, to make announcements, as well as to send messages concerning unexpected absences or problems.
- Students in Taiwan are very comfortable with Facebook and before the instructor created the learning group, all of the students in the class already had a profile for years. They easily connect with their teachers and generally enjoy reading posts related to their courses.
- The instructor may also help students connect to relevant websites, such as the Bureau français de Taipei (functioning as a de facto embassy), the Alliance Française (international organization promoting French language and culture around the world), webpages teaching French online or helping students pass the DELF (diploma awarded by the French Ministry of Education to prove the French-language skills of non-French candidates); students might also have the opportunity to meet future employers in the French community.
- Teachers should find some balance and make sure that being the group administrator does not become time and energy consuming. It is therefore advised to post one or two times per week and to choose the posts "wisely", in relation with what was actually taught during the class. Sharing too many posts or unrelated posts might be counterproductive.

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