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之行動研究

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摘要

PBL 教學法長久以來，被認為能夠幫助學生終生學習以及團隊合作。此外，PBL 的教學法著重在實際情況的模擬；觀光理論的學習雖然必要，卻無法讓我們所教授的學生面對真實環境的考驗；此研究案的主旨是想要證明經過一個學期的學生自我學習的教學之後，以及課堂案例研究討論時的引發思考，最後加上 PBL 的角色扮演(模擬談判)，是否能確實提升學生的自我學習、團隊合作和批判思考能力。此研究使用混合研究法，分別收集學生前、後測與平常作業成績和期末焦點座談、開放式問卷。此研究結果顯示，在量化方面，學生僅在批判思考上有顯著差異，有趣的是，其能力並非如預期地提升，而是下降。然而，在質性資料上，經過單一比對所有學生之學習歷程，則是顯示，學生在自我學習、團隊合作與批判思考上，會因為學生個人學習參與度和小組互動模式，而有不同程度地提升。同時，焦點座談與開放式問卷也顯示，學生雖然於角色扮演/模擬談判當中，得到學習歷程上的挑戰，卻也給予正面回饋，並提議能於學期間進行多次類似的活動，相信更能提升學習成效。

PBL is believed to be a teaching method to have a better effectiveness on lifelong learning and peer work. Besides, PBL relies on simulations of practical situations. It is necessary for tourism majors to be familiar with tourism theories as well as to be trained to solve problems in real practices. This research aimed at studying whether students may have better performance on their self-learning, teamwork, and critical thinking abilities in a PBL role-play negotiation game after a series of inspiring discussion-based teaching activities. The study employed a mixed method to collect the data from students' pre- and post-test, learning reflections, focus groups, and an open-end questionnaire. Interestingly, a repeated measures ANOVA was performed to test whether self-learning, teamwork, and critical thinking changed after students experienced the learning module. The univariate test indicated that only critical thinking scores significantly differed. In particular, the post-test score of critical thinking was significantly lower than its pre-test score. On the other hand, the qualitative data was coded and analyzed in the fashion of individual learning processes. It indicated that owing to students' learning participation and teamwork styles, students, on average, have better performances on their self-learning, teamwork, and critical thinking. PBL role-play negotiation game was believed to be challenging and yet inspiring and innovative. It is suggested that the similar formats of activities can be conducted for multiple times to boost the learning performance even more.

問題導向教學法 批判性思考 團隊合作 自我學習 學習成效

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1. 研究動機與目的(Research Motive and Purpose)

(1) 問題挑戰與背景

綜觀海內外之教育專家與學者，都指出未來所需要的人才，需要具備溝通的能力、問題的識別能力、國際語言的能力、團隊合作的能力、組織能力、行銷自己想法的能力、以及終身學習和跨領域的能力；然而，這些能力都不是大學許多專業的知識在形塑的過程當中，容易被注重的學習效果。

就另外一方面而言，從加拿大的醫學院開始興起的問題導向學習法(PBL)的目的在於發展學生獨立思考、自我學習、團隊合作的能力，並期待這樣的能力能運用於未來臨床醫療上。之後，問題導向學習法用於多個科目上，卻尚未有研究能完整闡述其教學法在觀光科目上對學生學習成效之映證，因此，此一研究的目的是透過行動研究的方式，經由專家學者所制定的評鑑量表、採用第三方評量學生學習成效、學生自評等方式，來驗證其教學與學習成效，顯示是否經過一個學期的問題導向式教學，學生能養成獨立思考、自我學習以及團隊合作之能力。

(2) 教學現場的挑戰

筆者任教於私立大學觀光系將近五年時間，於當年投入教學時，即開始使用 PBL (problem-based learning 問題導向學習法)，並於期間，觀察學生的學習狀況和表現；然而，苦無經費的情況之下，只能進行個人主觀也鬆散的觀察法，並無法以更為嚴謹的學術研究設計和規模，加入專家意見的評分機制，一同來探討學生是否確實經過一個學習的 PBL 教學設計，達到自我學習、團隊合作和批判思考能力之提升。因此，教育部之實踐研究計畫之經費，將會是協助筆者邀請專家一同設計評量量表(rubric)、評量同學上課實際表現、參酌同學於學期前與學期後之自評和期末焦點團體訪談(focus groups)之結果，以便完整收集資料，進行分析後，嚴謹地針對 PBL 是否能提升同學之自我學習等三方能力，有更為明確地探討。

再者，此研究方案為行動研究，更可以提供教學者進行下一階段教學之設計和修改；為確實提升大學教學品質，更盡一份心力。

(3) 議題的重要性與影響力

此研究案的主旨是想要證明經過一個學期的學生自我學習的教學之後，以及課堂案例研究討論時的引發思考，最後加上 PBL 的角色扮演(模擬談判)，是否能確實提升學生的自我學習、團隊合作和批判思考能力。如前面筆者所述，此一課程自 102 學年度起任教至今，不斷地進化教學內容和模式，但初心不變，那就是希望透過 PBL 的教學模式，讓學生可以有不同於只有講述課程的知識獲得，還能引發同學進行思辨以及增進解決問題之能力。然而，是否真能達成所規劃的教學目標，有待更嚴謹的研究來協助釐清、證明。

在強調創新教學和翻轉教室的現代，突破講述課程為主(lecture-based)的框架是首要改變的第一步。此一課程已經起步，其研究結果，可以成為相關領域教師之參考案例，另外，教學，尤其是觀光領域的課程，不該遠離實際狀況而只著墨於理論的建構和學習；此課程

的設計即是要鼓勵、引導同學，於大學期間，就不斷以身邊發生的真實觀光案例來當借鏡，只有透過真實案例來連結所學理論，才能讓學生認可所學有所用。

最直接的影響是本課程未來操作的方式將因為研究結果而提供改進的方向。其應用的層面主要還是以觀光領域課程為主，如果以單純筆者任教的其他科目來說，最能學習操作的將會是旅行社經營管理以及國際觀光行銷兩科；但任何與實際社會議題有關之課程，都能參考，像是同屬社會科學類別的政治經濟學系科目，或者泛觀光領域之休閒遊憩科目等。

2. 文獻探討(Literature Review)

(1) 國內外文獻

What is Problem-based Learning

Problem-based learning is a learner-centered approach that learners are given a real-world problem and are encouraged to conclude its solution by exploring required knowledge and integrating theory and practice (Carriger, 2016). Problem-based learning has been widely recognized and considered suitable for different professions since McMaster University initially adopted this method in medical education in the 1960's (Chang, 2003, Mykytyn, Pearson, Paul, and Mykytyn, 2008 and Lin, 2010). It was not until this recent decade that problem-based learning became a popular strategy in both secondary and higher education in Taiwan.

Problem-based learning is seen a learning opportunity, from which students must identify what they want and need to learn and search for self-directly search for knowledge (Davis and Harden, 1999). They learn to solve the given problem and its related ones; the problem itself must be ill-structured and open-ended. Apart from the knowledge, students acquire problem-solving skills and ways of gaining knowledge (Davis and Harden, 1999). Walsh (2005) explains that the problem is used to lead the students to find their learning needs as well as to learn from their colleagues. Wood (2003) suggests that the process of problem-solving make students to obtain generic skills and attitudes. These are why problem-based learning is considered to be very different from the traditional lecture-based learning. The lecture-based learning emphasizes the responsibility for teachers to deliver knowledge to students, during which students passively accept knowledge.

Hsu (2001) further explains that the relationship between teachers and students converts to be student-centered, which also makes teachers facilitators rather than knowledge transmitters. The learning activities does not merely focus on memorization but problem-solving and logical reasoning (Hus, 2001). Cheng (2006) concludes that problem-based learning is a process of learning.

To sum up, there are 4 features which are concluded from Hsu (2001), Kao (2002), Hmelo-Silver (2004) and Cheng (2006):

1. Problem-based learning is student-centered and a self-directed learning process.
2. The given problem is the starting point of learning; it is ill-structured and can reflect the situations in the real world.

3. Problem-based learning focuses on collaboration; students are allowed to modify their works persistently.

4. During the process of learning, students keep exploring their knowledge base and developing effective problem-solving skills.

Problem-based learning is thought to be an important development in health professions (Davis and Harden, 1999). Howard Barrows at McMaster University in Canada is considered to be the first one who developed this teaching and learning method in his course; the idea is to get ready for future clinical practices (Davis and Harden, 1999, MacKinnon, 1999, Lin, 2010, Chang, 2003 and Tang, Tsai and Tsai, 2008). Medical schools in Taiwan have been employing problem-based learning in the education of medicine and nursing widely (Tang et al., 2008). Ministry of Education in Taiwan also has been working hard on popularizing problem-based learning in secondary education (Chang, 2003 and Cheng, 2006). However, Tang et al. (2008) suggest that college students in Taiwan may still get used to traditional lecture-based learning owing to cultural background and proposes that adjustments on teaching styles, attitudes, teaching materials, and content may create proper learning environment that better trigger students' intrinsic motivation and learning interests. It is also the standing point that this research deploys and that this research plans to study on with actions.

The Features of the Problem

The problem in PBL is presented in the form of a scenario. Hmelo-silver (2004) thinks that the problem must be complex, ill-structured, and opened in order to promote flexible thinking. She also believes that the more vividly the problems reflect the real practices and the more tightly the problems can be related to students' personal experiences, the better the problems may trigger students' intrinsic motivation on learning. Furthermore, Hmelo-silver (2004) advocates that a good problem 'often requires multidisciplinary solutions', which is because that knowledge is extensive as well as that information can not be learned 'in isolation' (p. 244). Chang (2003) quoted from Gijsselaers (1996) and lists up the features a badly-designed scenario; these are (1) answers can be generated too easily without any further thinking, (2) problems look like chapter or section title in the textbook, and (3) the problems are far too simple which shows no conflicts and can not inspire learning motivation.

Wood (2003), Lu et al. (2006), and Tsai (2008) all propose the guidelines of designing an appropriate scenario; here is the summary:

1. The problem must be designed based on learners' knowledge level.
2. The teaching objectives indicated by the problem and the learning subject must match with the learning objectives generated by learners.
3. The scenario must motivate students to learn and must be relevant to future practice.
4. The scenario must lead students to integrate knowledge and application.
5. The scenario must contain some 'cues' to encourage students to discuss and to seek for explanations and solutions.

6. The problem should be sufficiently open, which make discussions go in depth and in breadth to induce diverse results.

The scenarios allow learners to search for information from a variety of learning resources.

(2) 研究發展

Research on PBL

The publication on PBL can be categorized into Six groups. They are literature on the introduction and overview on the PBL (Lin, 1999, Hsu, 2001, Kao, 2002, Chang, 2003, Wood, 2003, Lin, 2003, Walsh, 2005 Lu et al., 2006, Cheng, 2006, Tsai, 2008 and Yew and Goh, 2016), the publication on PBL course development (Chung and Chow, 2004, Tang et al., 2005, Duncan and Nakeeb, 2006, Shiau and Huang, 2006), the research on PBL leading to intrinsic motivation or attitude (MacKinnon, 1999, Tang et al., 2008 and Lin et al., 2013), the research on students' experience in PBL course (Tan, 2004, Kao, Shiau, Chiang and Li,

2008, Shiau and Kao, 2008, Nation and Rutter, 2015), the assessment of PBL and the effectiveness of PBL (Das, et al., 1998, Valle, et al., 1999, Albanese, 2000, Colliver, 2000, Segers and Dochy, 2001, Savin-Baden, 2004, Tseng, et al., 2006, Kuo and Tai, 2007, Mykytyn, et al., 2008, Doane and Stefl-Mabry, 2009, Hong, 2009, Alias et al., 2015, Alrahlah, 2016, Carriger, 2016, Gholami, Moghadam, Mohammadipoor, Tarahi, Sak, Toulabi, and Pour, 2016, and Niwa, Saiki, Fujisaki, Suzuki, and Evans, 2016).

The trend indicates that the assessment and effectiveness in PBL draw academics' attention for decades. There is discrepancy in the results on the effectiveness of PBL on knowledge retain; however, generally speaking, students in courses applying PBL may show better performance on knowledge in a longer time span. Academics have different view on how effective the PBL train students' clinical skills; however, the results all indicate that PBL has better effectiveness on lifelong learning and peer work.

The literature also suggests that the research on PBL is chiefly conducted in medical education and there is null case study on the practice of PBL in a tourism-related course. It triggers the researcher's interest since the researcher does have a course that fully applies PBL in its teaching strategies. Thus, the research objectives are to document how a problem-based applied course is designed and developed and to study students' learning process and performance from the beginning to the end of the semester from the perspectives of self-directed learning, critical thinking, interpersonal communication and collaboration and general performance. The research question of this study will be how effective the problem-based learning in tourism-related course. The research framework is presented in the next chapter.

The Teaching and Learning Process

The problem-based learning is also teaching. Wood (2003), Tan (2004), Walsh (2005), Lu, Wang, and Chen (2006) and Chen (2007) all propose their versions of teaching process. The teaching process developed by McMaster University serves as the base from which most academics develop their indication. The 7 steps in PBL are (1) identify the problem, (2) explore

pre-existing knowledge, (3) generate hypotheses and possible mechanisms, (4) identify learning issues, (5) self study, (6) re-evaluation and application of new knowledge to the problem, and (7) assessment and reflection on learning. The table below illustrates tasks in each step that both teachers and students must fulfill, which is summarized from all versions proposed by Wood (2003), Tan (2004), Walsh (2005), Lu, Wang, and Chen (2006) and Chen (2007).

Table: Tasks in PBL Learning Steps

Steps	Tasks
1. Identify the problem	<ul style="list-style-type: none"> ● to clarify the unclear or unknown parts in the scenarios ● to ‘diagnose’ questions including ‘why’s,’ ‘how’s’ and ‘when’s’
2. Explore pre-existing knowledge	<ul style="list-style-type: none"> ● to have brainstorm on discussed problems ● to suggest possible explanations on basis of existing and prior knowledge ● to scribe all discussion in records
3. Generate hypotheses and possible mechanisms	<ul style="list-style-type: none"> ● to list up possible solutions ● tutors must prevent students from jumping to the conclusion ● to ensure students understand important concepts and get ready for further delving ● to ensure the generated hypotheses are related to the expected learning objectives of the problems
4. Identify learning issues	<ul style="list-style-type: none"> ● Students must list up incomplete knowledge that require further research ● Teachers must ensure learning objectives are focused, achievable, comprehensive, and appropriate
5. Self study	<ul style="list-style-type: none"> ● All students study individually to gather information related to each learning objective.
6. Re-evaluation and application of new knowledge to the problem	<ul style="list-style-type: none"> ● Results of individual study are shared in groups. ● Asking questions mutually in group discussion is essential. ● New knowledge is employed in solving the problems. ● Key concepts are applied to the problems.
7. Assessment and reflection on learning	<ul style="list-style-type: none"> ● The learning process is reviewed. ● Team members give each other feedback on contributions in the learning process.

(3) PBL 的評量方式介紹

Assessment

The assessment in general learning and in PBL can be categorized into formative assessment and summative assessment (Doane and Stefl-Mabry, 2009). The former helps teachers to monitor students' process of learning and knowledge acquisition so that teachers can provide timely feedback and assistance (Walsh, 2005 and Doane and Stefl-Mabry, 2009). The latter one is usually hosted by the end of the semester to confirm the level of learning achieved (Doane and Stefl-Mabry, 2009).

Walsh (2005) highlights the importance of formative feedback and advocates that there must be formative feedback when a tutorial is concluded. Walsh (2005) proposes that formative feedback must be specific, focused, positive, inclusive, relevant and timely. Lin (2010) takes, ODOP (one day one problem) conducted in Republic Polytechnic in Singapore, for example, and points out that peer evaluation, self evaluation, and written reflection journal are all used to assess the progress of learning.

On the other hand, summative assessment is also expected to employ diverse approaches to evaluate students' performance (Doane and Stefl-Mabry, 2009). Davis and Harden (1999) develop a variety of evaluation

methods and propose that the way of assessment must echo with what is expected to be assessed. For example, they (1999) believe that multiple choice questions is more suitable to test the retain of knowledge, that modified essay questions is more proper to test problem-solving, and that extended matching item format can examine students' clinical decision making, data interpretation, and other intellectual activities including knowledge recall and problem-solving (p. 138).

Kao (2002) also proposes his classification of both formative and summative evaluations that can be used in PBL, which is shown in table below.

Table: Evaluations in PBL

Stages of Assessment	Evaluation Methods	
Formative Assessment	<ul style="list-style-type: none">● peer-assessment● self-assessment● oral presentation● interview, observation, tests	<ul style="list-style-type: none">● stimulus essay● case review● authentic assessment● performance assessment
Summative Assessment	<ul style="list-style-type: none">● case review● situational assessment● multiple choices test● short answer assessment	<ul style="list-style-type: none">● essay● portfolio

Adopted from Kao (2002, p. 16)

It is also because that PBL emphasizes on the progress of learning, Duncan and Al-Nakeeb (2006) think that examines on recalling facts is not suitable to assess the learning performance

of PBL. However, Alrahlah (2016) and Savin-Baden (2004) both point out that it is very difficult to assess learning in PBL, which is because that students are allowed to set up their learning objectives which may be very different from what teachers have expected. Savin-Baden (2004) concludes in his research and indicates that students are willing to take part in assessment process. However, Savin-Baden (2004) also points out that peer- and self-assessment is rarely seen in higher education, namely in the UK. Moreover, it is difficult to evaluate the acquisition of skills in PBL (Alrahlah, 2016). Nevertheless, the literature still indicates that self-evaluation is the most frequently assessment in PBL (Das, Mpofu, Dunn, and Lanphear, 1998, Valle, Petra, Martinez-Gonzalez, Rojas-Ramirez, Morales-Lopez and Pina-Garza, 1999, Tseng, Jian, Hsu, Ko, Chin and Chou, 2006, Mykytyn et al., 2008, Tang et al., 2008, Lin, Chan, Lai, Chin, Chou, and Lin, 2013, Alias, Masek, and Salleh, 2015, Nation and Rutter, 2015, and Vidal, Castillo, and Gomex, 2016).

3. 研究方法(Research Methodology)

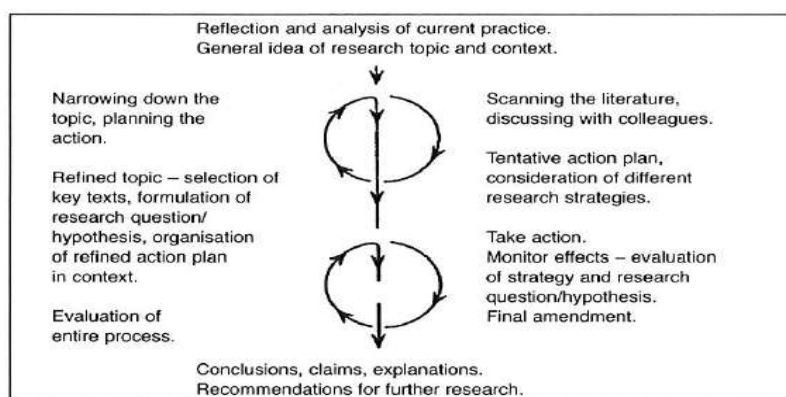
This is an exploratory study with the strategy of action research by employing a mixed method approach to collect its data. Macintyre (2000) reviews and re-proposes her comprehensive definition of action research saying:

“Action research is an investigation, where, as a result of rigorous self-appraisal of current practice, the researcher focuses on a ‘problem’ (or a topic or an issue which needs to be explained), and on the basis of information (about the up-to-date state of the art, about the people who will be involved and about the context), plans, implements, then evaluates an action then draws conclusions on the basis of the findings.” (p. 1)

Stringer (2008) also suggests that action research is a research on classroom instruction and learning and its results can provide teachers insights into the enhancement on teaching strategies as well as the improvement on students’ learning skills.

Action research is a spiral or circulatory research design; Figure shown below is the research model that proposed by Macintyre (2000). From the model we can see that it echoes the Look-Think-Act action research helix proposed by Stringer (2008).

Figure: Action Research Cycle (proposed by Macintyre, 2000, p.1)

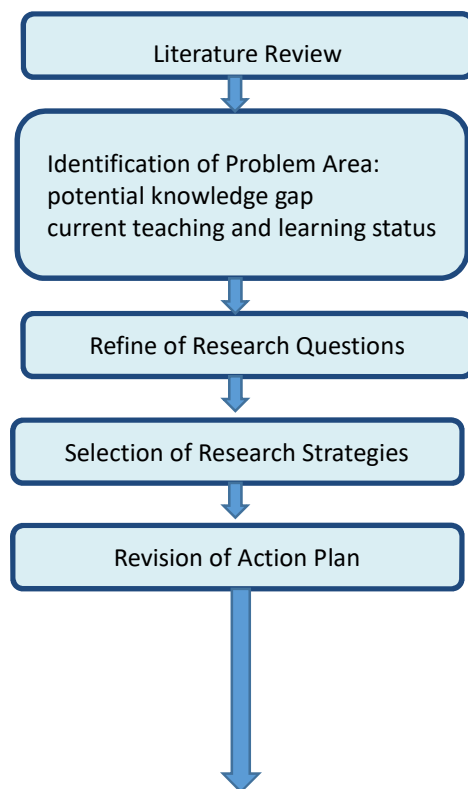


To sum up, an action research begins with the identification of problem area, which leads to data collection, data analysis, action based on data, and reflection (Ferrance, 2005 and Stringer, 2008). However, with consideration that this study will be not only a research focusing on how to improve teaching quality but also a research with academic research purpose, the research design of this study will be the one shown in figure shown below.

This research design figure employs all three research design stages proposed by Macintyre (2000), Ferrance (2005) and Stringer (2008). It starts with literature review on problem-based learning and its related research. The study comes up a problem area with research interest and opportunity; however, current teaching and learning situations must be put into consideration. Therefore, a set of refined research questions will be proposed and appropriate research strategies will be selected. Then, a revised action plan is made before actions officially take place. Data is collected along with the realization of action plan. Data is analyzed and the results of this study are presented with the consideration of future actions.

Macintyre (2000) suggests that after research questions are formulated, there is a series of questions that an action research researcher must put into consideration; these questions includes what will the investigation cover, how will you gather the data, when and how frequently the data will be collected, where the data will be collected, with whom these data will be collected and what resources will be included in the set of data? Stringer (2008) and Ferrance (2005) both believe that data can come from a variety of sources; besides, the selection of information sources will be navigated by the core issue that is studied in the research. Both Ferrance (2005) and Stringer (2008) list up a variety of data sources, which are shown in the table below.

Table: Research design of this study:



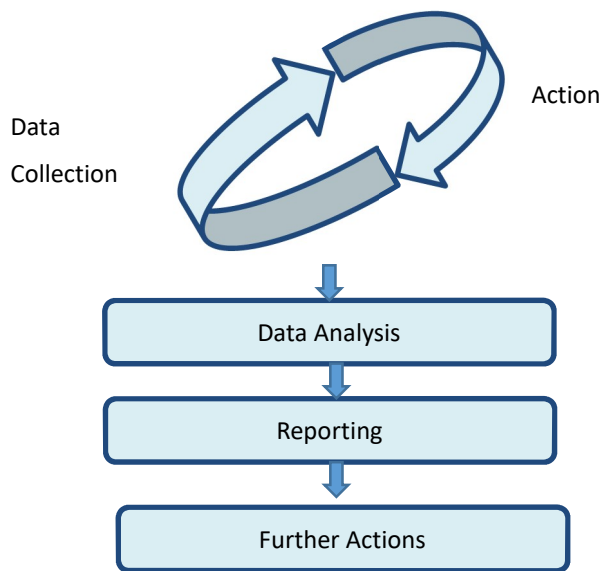


Table: Data Sources for Action Research

interviews	focus groups	journals	portfolios
individual files	diaries	logs of meetings	field notes
videotapes	audio tapes	case studies	photos
surveys	memos	records – tests, report cards, attendance	questionnaires
self-assessment	anecdotal records	samples of student work, projects, performances	checklists

Since this study wants to investigate that whether problem-based learning course design can help student to develop their ability on self-directed learning, critical thinking, and teamwork , this study plans to collect data by means of self-assessment, reflective learning diaries on given tasks, videotaping of in-class activities, and focus groups. First of all, this study will collect a pre-test and a post-test on students’ self-evaluation on their own self-directed learning, critical thinking, interpersonal communication and collaboration and general performance in the beginning and the end of the semester. These 2 set of data is categorized to be self-assessment. It allows students to evaluate their progress on learning performance. Furthermore, students are required to write reflection essay to elaborate on what they are learning from the given tasks. Apart from that, a role-play-based negotiation activity will be videotaped. Both their reflection essays as well as the videotaped will be evaluated by other two examiners who have trained to be problem-based learning teachers rather than assessed by the researcher who is happened to be the instructor of this course. By the end of the semester, focus groups will be hosted; students are invited to contribute their thought and viewpoints with regards to the course design, their learning process and further suggestions on course improvement.

The self-assessment will be divided into 4 aspects, the evaluation on self-directed learning skills, the evaluation on critical thinking ability, the interpersonal communication and collaboration and general performance. The total items on the self-assessment will be 32; those

items are adopted from Valle et al (1999), Tseng, et al. (2006), Tang et al. (2008), and Lin et al. (2013). These 32 items are presented below in the table.

Table: Self-assessment items

<p>Self-directed learning</p> <ul style="list-style-type: none"> × acknowledges own strengths and weaknesses in the learning process × participates actively in defining own learning objectives × utilizes appropriate resources to meet own learning needs × demonstrates effective action to meet own learning need × takes responsibility for actions and their consequences to self and group × evaluations relevant learning outcomes × seeks constructive feedback × responds appropriately to constructive feedback
<p>Critical thinking</p> <ul style="list-style-type: none"> × analyzes the problem in a systematic, organized fashion × demonstrates an understanding of underlying concepts × interprets, analyzed and applies relevant theories, concepts and facts × makes links with prior relevant readings, experience or knowledge × clarifies the issues in the problem × asks questions to clarify points, enhance understanding × checks accuracy and validity of information × justifies reasons or actions × generates and considers alternative perspectives
<p>Interpersonal communication and collaboration</p> <ul style="list-style-type: none"> × understand the role of the other team members × capable of communication, coordination, and conflict resolution × recognize and respect competence of others × willing to work as a team and share the same goal with team members × enjoy teamwork, group discussion, brainstorming and share of knowledge × confident in own ability as well as others' × capable of facilitating collaborative practice
<p>General Performance</p> <ul style="list-style-type: none"> × uses different resources to obtain needed information × presents well-organized information relevant to the case × is persistent in the study of the case × is motivated to know more × implements activities to activities to achieve the learning objectives × gives feedback (reflections, ideas, and suggestions) × helps her/his peers to clarify ideas

However, these items are generated from medical and nursing education and these may not fully applicable to tourism-related courses. Thus, Delphi method will be used; experts on education and academics in tourism field will be consulted. Eventually, a self-assessment with items that can fit in tourism-related courses will be designed.

Apart from the finalization of self-assessment, the Delphi group will help design assessment rubrics for marking students' reflection essays and performance in the in-class activities. This assessment rubrics will again designed into 4 aspects, self-directed learning, critical thinking, team collaboration and general performance. With the assessment rubrics, students' reflection essays and videotapes of in-class activities will be examined by external examiners. These external examiners is called 'validation group' in action research; they are invited to meet regularly and to review the progress of the educational activity (McNiff and Whitehead, 2002, p.105).

Last, but not least, focus groups will be hosted to gather students' opinions and feedback. Focus groups will be transcribed in order to present their thoughts on course design, learning progress and course improvement.

The variety of data sources also serves the triangulation of this study 'in order to ensure that the data are telling me what I think they are telling me' (Saunders, Lewis, Thornhill, 2009, p. 146).

4. 教學暨研究成果(Teaching and Research Outcomes)

(1) 教學過程與成果

每一個班級的學生組成，都有其特質，107 學年度的學生與先前幾屆有著明顯不同的狀態；首先，敝系是採用全英文授課，在招生的過程當中，設有語言條件，然而，多元入學的狀況下，入學的英語能力條件不同，也導致同一年級的學生當中，英文的聽說讀寫能力有著很大的不同。另外，整體的學習氣氛和態度，也有著差異；與前幾屆學生不同的是，這一屆的學生很明顯地分成兩個族群，一是學習動機強烈、自我要求有一定高度的族群，另外一群則是學習態度消極、容易上課分心的一群。針對這樣的狀態，其教學方式和教學大綱，都必須在開學後立即調整，以因應學生的學習狀態。整體而言，此課程包含四個部分：理論奠基、專業知能服務學習、桌遊、PBL 角色扮演。其中，因應學生學習狀態和語言能力，大幅改變理論奠基的授課模式，並調整專業知能服務學習的難易度，其餘兩者不變。以下是教學過程和教學成果的說明。

(i) 教學過程/教學方式

原先的教學大綱和方式包含有觀光理論的講授和期刊文章的案例研究，然而，學生對於講授時，儘管教學者已經採用互動式的教學法，常常以對話、問題引導的方式來講課，仍有一半以上的同學只要一講課就開始滑手機、打瞌睡。因此，教學的綱要雖然不去變動，教學的過程、方法，則是大幅改變。首先，教學不再以講授為主，而是改採用主題式的小組討論為模式；筆者先行準備觀光新聞報導的文章，其長度以不超過兩頁 A4 為原

則，筆者會先進行文章內容的概要敘述，接著，請同學進行小組閱讀並提供討論題目。小組能夠有足夠的時間閱讀、討論、回答問題，接著，再讓小組進行口頭報告。而口頭報告之後，會再由筆者用引導的方式，進行 Q&A，針對學生報告的部分，再進行進一步的討論，並試圖連接回去原本想要教授的理論。

採用小組討論、口頭報告之後，仍不乏有學生是以比較消極、被動的方式來因應；當有這樣的狀況發生之時，則筆者則是逐桌觀察、加入小組討論，並以邀請發言的方式，請態度較為消極的同學針對問題回答之。然而，主動參與學習的學生人數是大幅增加，且學生的討論氣氛也相當融洽，這樣的做法也正奠基此研究案的主題-以問題導向的教學法來提升學生的自我學習、團體合作和批判思考等三個項目。

捨棄原先想採用的期刊文章為案例研究的主要原因是發現 107 學年度的修課學生其英文能力遠遠不及前幾屆的學生，再加上專注力不足，即使採用“jigsaw reading”的方式，仍會有大部分的學生是無法專注閱讀完所交付的期刊段落。因此，筆者開始以觀光新聞報導為主(英文書寫)，並刻意選擇幾則和學生自身經驗能有連結的新聞，像是「春遊補助」、「宜蘭熱門景點」、「在地特色」等，並於期中考時，以「巴里島預計徵收觀光稅」為主題的新聞文章，請學生寫出正、反兩面的支持論點。此設計的另外一個考量正是想要引發學生的自我學習能力和批判思考能力。

專業知能服務學習原先規劃是學生必須透過與業師的合作，設計一套遊程，並實質地帶領參與者走訪一趟自己所設計的遊程。然而，業師第一次進行校外教學(遊程潛力點之初探)，就發現學生意態闌珊，從繳交的課後心得與日後課程進行專業知能服務學習的方案討論，甚至到業師回到課堂當中來演講，都發現學生抓不到重點-遊程內涵的提升、旅遊品質的加強。因此，將原先應該進行的專業知能服務學習改變成為觀光行銷的影片拍攝，其要求則是需要以深度介紹為主，每一組認領一觀光景點，其觀光景點都是當時校外教學探訪過的地方。學生對於拍片的興趣大過於遊程的設計與帶領，而這樣的改變也比較符合此屆的學生的時間管理。(註:此班級學生多為系學會和各社團的重要幹部成員，密集的系學會活動和社團活動，的確造成學生時間分配不均。)

桌遊則是為了 PBL 角色扮演而奠基。“Tourism Tycoon”是一款由筆者設計的桌遊，其基本架構以大富翁遊戲為原型，學生在購買了領地之後，需要決定於領地上建設與觀光相關的基礎建設和觀光設施，其命運與機會也呼應各項觀光目的地、觀光產業會面臨的危機與機緣，其設計架構融入觀光發展計畫、觀光發展衝擊、觀光行銷、觀光產業利益關係者等等的概念，期待學生透過遊戲的方式，領略各理論。遊戲結束後，立即有全班性的議題討論，學生也必須書寫書面心得。

PBL 角色扮演-Choice of City Versatile 則是學生在批判思考、團體合作、自我學習三者之間的最終試煉。Choice of City Versatile 也是筆者依照問題導

向教學法的原則所設定的問題情境，學生必須扮演特定的觀光業立業關係者的角色，針對設定的情境問題，進行溝通、協調、談判，最終必須得出全場各角色都同意的決定。

(ii) 教學成果

如研究方法所述，此研究案分成量化與質化兩個部分的資料收集。量化部分共有兩項，一是學生的前測與後測，一是由專家學者共同擬定之評分量表，提供教學者於學生進行 Choice of City Versatile 之活動時，評量學生之工具。

此課程總修課學生為 38 位，其中兩位期中退選，一位沒有簽屬參與研究同意書，因此，只有 35 位成為研究的資料收集對象。這 35 位同學只有一位是大四的觀光系學生，另外 34 位皆為觀光系二年級的學生。而其中女生為 25 位，男生為 10 位；所有學生當中，有三位是外籍生。

首先，量化當中的前測與後測的問卷，都於附件當中完整呈現。而由於筆者本身為質性研究者，其量化統計的分析，在教育部的諮詢費補助之下，商請宜蘭大學黃詠奎助理教授協助，透過重複測量變異數分析(repeated measured ANOVA)，在經過問題導向教學法之後，學生於自我學習、團體合作與批判思考這三個能力方面，僅只有批判思考有顯著差異，其批判思考能力是下降的。然而，我們必須探討的論點在於前測與後測問卷的施測點，學生在評斷其批判思考能力的依據是不相同的。於前測期間，學生單純自我評斷一般狀況，而後測的施測點在於進行完 PBL 角色扮演活動之後，而活動過程當中包含太多狀況，很可能是學生填寫後測問卷時，影響自我評斷的原因，而這一部分，則需要透過質性的資料收集，才能獲得解答。

Table: 三項能力與學習動機之前後測之描述性統計結果

Variables	Pre-test		Post-test	
	M	SD	M	SD
Self-learning	3.91	.50	3.86	.66
Teamwork	4.17	.67	3.82	.75
Critical thinking	3.96	.49	3.63	.76
Learning motivation	4.19	.55	4.06	.92

量化的另外一個方式是以專家學者所設計之評量標準(rubrics)，來當教學者評斷學生 PBL 角色扮演活動之表現依據。其評量標準，也請見附件檔案。依照評量標準，筆者進行每一位同學於 Choice of City Versatile(PBL 角色扮演)活動表現的評量，自我學習共有六項評量項目、團隊合作共五項、批判思考共八項，其評分等第介於 1 至 5 分，其 1 分表示此生對此項目並無表現，而 5 分則表示此生對於此項目的表現優異。

Table: 1 ~ 5 分等第表示之意思列表

Scores	Description
1	Demonstrates no understanding of the problem/No demonstration of such action
2	Demonstrates little understanding of the problem. Many requirements of task are missing.
3	Demonstrates partial understanding of the problem. Most requirements of task are included.
4	Demonstrates considerable understanding of the problem. All requirements of task are included.
5	Demonstrates complete understanding of the problem. All requirements of task are included in response.

adopted from Mertler (2001)

全班 35 位同意參加此研究案的同學當中，僅有 12 位同學在各項(各細項請見附件四)的分數能達 4 分以上，僅 5 位同學，勉強屬於中段表現，各項目能獲得 3 分的表現。而另外的 18 位同學，集中於 2 分，甚至多所項目僅能獲得 1 分的表現；換句話說，呈現極端的分布曲線，而學習高峰的同學，深入分析個人的學習特質，主要是外籍生、大四的學生，以及學習動機相對高昂的「學霸群」，以及零星幾位資質不錯，但是學習態度略顯不積極的同學。而由於，Choice of City Versatile 是一個需要英語口說能力的活動，這 12 位學生也剛好是全班英文程度落在雅思(IELTS)6 分以上的族群；正因為如此，此研究也衍生出新的疑問，是否在全英語授課的環境之下，其學生的英文能力，會影響其學習動機和學習表現。

如果以評量標準的量化結果來對照學生自評的後側問卷統計來說，學生並沒有因為 PBL 教學法的採用，而在自我學習、團隊合作、批判思考等三方向有好的表現；然而，卻也解釋了驗證了前後測統計所顯示，其批判思考能力之下降的事實。

然而，我們必須以量化結果來說明 PBL 教學法對於學生在這三項的學習能力上是沒有提升的嗎？筆者認為，其可以解釋的空間仍然相當地大，而且，質性研究結果，則稍微說明了這一點。

質性的研究則包含筆者課後的筆記(研究筆記)、學生桌遊、角色扮演之心得、匿名書寫之回饋、邀請制之焦點座談。

質性研究得以讓筆者著重以小組為單位和個人為單位，來充分了解其學習歷程。針對自我學習、團隊合作和批判思考三個項目的能力培養，得出以

下的結論。

首先，學習是曲線，一個長達 18 周的學習歷程來說，此三種能力並非持續提升，而是起起伏伏；然而，總括而言，學生在這三方面的能力，是普遍稍微有提升，但是，進步的幅度不大。

再者，自我學習的部分，以小組為單位而言，有三組(全班分成 7 組)是有提升；而個人的部分，則有兩個重點，首先，當小組的成員是能夠比較積極發表意見、提供自我學習成果時，能促發同一組的成員改變自己的學習模式，進而學習從課外尋求知識來源、資訊來源。另外，即使成員處在相對較為消極學習的團隊當中，再透過教師的全班性引導或者分組座談當中的提示、口頭報告的回饋之後，其個人也能在自我學習上有更為主動的表現。

同時，團隊合作來說，普遍得到學生相當正面的回饋。加上小組成員由學生自行決定之，本身團員之間的契合度都不錯，儘管，無法透過此研究來證明問題導向教學法能夠提升同學的團隊合作的能力，但是，團隊合作反而是同學喜歡的教學方式，也算是意外地為課堂氣氛帶來正面影響。

最後，批判思考的能力方面，呼應到量化研究的結果，僅只有少部分的學生，能夠展現出其能力的提升。而這少部分的學生來自於其中的兩個小組，分別是外籍生與大四生的組別，以及台籍學生當中，相當力求學業表現的組別；這兩組也是團隊合作當中，隊員之間相當能互相影響與感染力的兩組。

除了回應研究問題之教學成果的呈現之外，此課程也因為受到教育部的補助，能以更精緻的印刷完成桌遊和 PBL 角色扮演教具之製作。其成果將於附件當中以照片的方式來呈現。

(2) 教師教學反思

(i) 彈性調整教學內容與方法

每一個班級的學生組成分子都不同，其反應出來的學習特質和狀況(問題)也都不一樣，同樣的教學大綱，必須呼應當時面臨學生的條件，進行彈性跳整，甚至學習的進度、教學的步驟與速度，都需要調整。剛開始面對 107 學年度這一個修課班級時，會有許多既定的想像，加上過往經驗的美好，很容易忽略學生特質不同。照本宣科、一成不變的教學，只會導致學生更加反彈，學習效果不加，甚至連班級經營都會產生問題。期初調整的腳步，儘管無法拉抬每一位同學的學習動機、提升每位同學的學習態度，但是至少能營造一個師生合作共同學習的教師氣氛。期刊文章有其深度，然而，無法讓學生自行閱讀，學生仍然無法有所學習，因此，依照學生程度調整閱讀內容，也是必要之彈性。

(ii) 尊重學生個別特質，給予不同程度之功課

以 107 學年度修課同學而言，如上所述，學生的英文程度相差甚大，這是和以往班級很大地不同；尤其，班級上有三位外籍生，其英語閱讀和聽講吸收的能力，大幅超前所有班級其他的學生，再加上這三位同學從大一開

始，就密集地小組合作(自我成立之讀書小組)，因此，小組討論的默契極佳，其討論的速度和準備口頭發表的效率，往往造成需要等待其他台籍同學的窘境。面對這樣的狀況，額外給予較為艱深的內容和討論題綱，就成為課堂上需要客製化的部分。當然，能夠有這樣的彈性，也在於教學模式的彈性變化而能產生的機會。

(iii) 於小組討論時的巡迴參與，讓教師更熟悉每一位同學

當學生小組討論的同時，教學者須不停地巡迴於各組之間，聆聽討論、巡迴參與。如果小組的討論相當順利，則教學者的主要以聆聽為主，輔以詢問更深一層、引導思考的問題為輔。如果小組合作陷入困境，或者無法能有效跟隨提綱來進行討論，教學者則變成了討論的促進者(facilitator)，從旁指引、鼓勵討論。也正是因為這些與學生面對面的機會，更能於交流當中，認識每一個學生的需求和想法，也更能觀察出每一位同學的學習狀態和風格，這對於事後分析此研究必須之研究筆記和個人學習歷程，能有著很大地幫助。

(iv) 素養能力的培養與提升，需要更長時間的觀察和資料收集

這一次的研究案，僅能收集一個學期的學習歷程，而研究主題當中所針對研究的能力：自我學習、團隊合作、批判思考等能力，都是屬於素養的能力，需要更長時間的培養。因此，這是未來研究此一題目時，需要考量並改進的部分。

(3) 學生學習回饋

學生的學習回饋也將分成兩部分來說明，第一部分為學生於期末之匿名開放性問答的回饋以及邀請制之焦點座談的回饋整理。第二部分則是校方於期末所進行之教學評量的回饋依據；教學評量也將置於附件當中。

質性學習回饋方面，可以整理出以下幾個重點：第一，多元評量與創新教學，讓同學對於此一堂課的學習興趣增加。第二，小組討論的方式，讓上課氣氛融洽，且學生反應，相對於講授的方式，能夠小組討論並口頭報告，而老師再給予引導與回饋，是一個比較令學生喜愛的上課方式。第三，桌遊相當有趣，沒有想過上課能夠玩桌遊，甚至會覺得時間過得很快，學生也提供相當多的意見，希望能夠增加桌遊的難度；角色扮演相當新奇，也是挫折感也很大，學生建議，如果能在 Choice of City Versatile 進行之前，也有類似的活動設計，學生自評可以因此有所成長，而能讓 Choice of City Versatile 的表現更好。

第二部分，教學評量的部分，敝校採用 6 分問卷，共 11 個題目，五個面向，分別是學習效果、專業態度、教學方法、教學內容、性別差異等。筆者所獲得之教學總分為 5.74(調整過後)，各項調整過後的分數如下：學習效果 5.73、專業態度 5.77、教學方法 5.71、教學內容 5.73、性別差異 5.80。以總分來說，對比系平均 5.58、院平均 5.47、校平均 5.47 來說，學生對於此科在教學表現上，都是平均之上的正面評價。

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附件(Appendix)

與本研究計畫相關之研究成果資料，可補充於附件，如學生評量工具、訪談問題等等。

附件一：期初學生能力判定(用於第三周，學生上課狀況不如理想時，額外的問卷)

附件二：學生自評前測問卷

附件三：學生自評後測問卷

附件四：專家學者共同擬列之 Choice of City Versatile 評分尺規(rubrics)

附件五：小組討論、口頭報告、桌遊、PBL 角色扮演等上課時照片

附件六：焦點座談基本討論題綱

附件七：教學評量

Tourism Resource Management

Name: _____ (Code: _____)

1. My understanding on this news article (based on what teacher said /told in class).在老師講解這則新聞之後，我對於此件事情的了解。

2. Other information that I searched/found from books or other types of media.
(Please provide reference source, such as news article on the internet or journal article....)
除了老師所提供的資料之外，我又額外找了那些資料呢? (請舉例說明，並給予內容概述)

3. The opinion I prepared to share with my team members. 我準備在小組討論中分享的觀點是什麼?

4. The ideas/concepts that I learn from my team members. Any new reference? Any agreement or disagreement? How did I reform my current ideas? 我從小組討論中，從我的組員們的意見，學習到了什麼? 我在小組討論之後的觀點是什麼?

5. What is/could be my difficulty in this topic-focused discussion? 我在這次的活動當中，覺得有些困難的地方是那些？

- | |
|--|
| <ol style="list-style-type: none">1. My English proficiency level is _____ (英文能力檢定成績，包含雅思、多益、托福等等。2. The language I used in group discussion is _____, and why? 小組討論所使用的語言是什麼？為什麼使用此語言？3. When studying, usually I prefer to/I get used to _____? 當學習、念書的時候，我比較傾向於哪一種學習的態度與方法？ |
|--|

這是一份針對課程活動設計與學生自我學習、批判思考與團體合作的研究，一共有 28 題，只需要花費您 5 分鐘的時間。您的協助，會幫助教師設計課程和進行教學類的研究。請靜下心來，依照自我的狀況，填寫以下的問卷內容。謝謝。

請依照敘述的同意程度勾選「✓」最適合自己的狀況。1 表示強烈不同意、5 表示強烈同意。

(一)、自我學習

	強烈 不同意 1	不同意 2	中等 3	同意 4	強烈 同意 5
1.我知道自己在學習上的強項和弱點。					
2.我會主動訂定出自己的學習目標。					
3.我會運用適合的資源來達成自我的學習需求。					
4.我會積極行動來達成自我的學習需求。					
5.我對自己和群體的學習行為以及學習結果承擔起責任。					
6.我會評估學習成果。					
7.我會尋求具有建設性的意見回饋。					
8.我對具有建設性的意見會有適度的回應。					

(二)、小組合作

	強烈 不同意 1	不同意 2	中等 3	同意 4	強烈 同意 5
9.在小組活動中，我了解每個成員的能力。					
10.在小組活動中，我能溝通、協調和緩和衝突。					
11.在小組活動中，我尊重每個成員的意見和貢獻。					
12.在小組活動中，我能和小組成員同心協力。					
13.我願意小組合作並共同為同樣的目標努力。					
14.在小組活動中，我對我自己和隊員的能力有信心。					
15.我樂在小組活動、群體討論、腦力激盪、分享知識的過程。					

(三)、批判思考

	強烈 不同意 1	不同意 2	中等 3	同意 4	強烈 同意 5
16.在理解問題時，我能有系統、有條理、有組織地分析問題。					

	強烈 不同意 1	不同意 2	中等 3	同意 4	強烈 同意 5
17.在理解問題時，我能展現我對基本觀念的理解。					
18.在理解問題時，我能解釋、分析、運用相關的理論、觀念、和事實。					
19.在理解問題時，我能連結先前念過的內容、經歷過的經驗、學習過的知識。					
20.在理解問題時，我能釐清問題所要探討的議題。					
21.在理解問題時，我會問問題來釐清要點和加強了解問題涵。					
22.我會確認收集來的訊息是正確、有用的。					
23.我會驗證其道理或者行為。					
24.我會想出其他解決問題的方法。					

(四)、學習動機

	強烈 不同意 1	不同意 2	中等 3	同意 4	強烈 同意 5
25.我對於這一個科目(觀光資源管理)有學習的意願。					
26.我覺得課堂講課和課堂活動讓我對這一科目更有興趣。					
27.我對於在這一科的學習經驗感到快樂、滿足。					
28.這科目的課堂進行方式讓我更願意有課堂參與的表現。					

問卷版本: B1

問卷編號: _____

姓名: _____ (只為研究目的使用，完全不影響課業表現的成績，請放心誠實填寫。)

這是一份針對課程活動設計與學生自我學習、批判思考與團體合作的研究，一共有 34 題，只需要花費您 5 分鐘的時間。您的協助，會幫助教師設計課程和進行教學類的研究。請靜下心來，依照自我的狀況，填寫以下的問卷內容。謝謝。

請依照敘述的同意程度勾選「✓」最適合自己的狀況。1 表示強烈不同意、5 表示強烈同意。

(一)、自我學習

	強烈 不同意 1	不同意 2	中等 3	同意 4	強烈 同意 5
1.我知道自己在學習上的強項和弱點。					
2.我會主動訂定出自己的學習目標。					
3.我會運用適合的資源來達成自我的學習需求。					
4.我會積極行動來達成自我的學習需求。					
5.我對自己和群體的學習行為以及學習結果承擔起責任。					
6.我會評估學習成果。					
7.我會尋求具有建設性的意見回饋。					
8.我對具有建設性的意見會有適度的回應。					

(二)、小組合作

	強烈 不同意 1	不同意 2	中等 3	同意 4	強烈 同意 5
9.在活動當中，我了解每個成員在 Choice of City Versatile 當中所扮演的角色和他的訴求。					
10.在 Choice of City Versatile 活動當中，我能和其他成員進行溝通、協調，甚至化解分歧意見。					
11.我能了解並尊重每個成員在 Choice of City Versatile 當中，所提出的意見					
12.在 Choice of City Versatile 活動當中，我能尊重每個成員的能力					
13.在 Choice of City Versatile 活動當中，我能和其他成員一同為目標而努力					
14.在 Choice of City Versatile 活動當中，我能尊重其他成員的領導					
15.在 Choice of City Versatile 活動中，我對我自己和隊員的能力有信心。					
16.在 Choice of City Versatile 活動當中，我樂在小組互動、群體討論、腦力激盪、分享知識的過程。					

(三)、批判思考

	強烈 不同意 1	不同意 2	中等 3	同意 4	強烈 同意 5
17.在理解問題時，我能有系統、有條理、有組織地分析問題。					
18.在理解問題時，我能展現我對基本觀念的理解。					
19.在理解問題時，我能解釋、分析、運用相關的理論、觀念、和事實。					
20.在理解問題時，我能連結先前念過的內容、經歷過的經驗、學習過的知識。					
21.在理解問題時，我能釐清問題所要探討的議題。					
22.在理解問題時，我會問問題來釐清要點和加強了解問題涵。					
23.我會確認收集來的訊息是正確、有用的。					
24.我會驗證其道理或者行為。					
25.我會想出其他解決問題的方法。					

(四)、學習動機

	強烈 不同意 1	不同意 2	中等 3	同意 4	強烈 同意 5
26.我覺得這次活動會讓我更有學習的意願。					
27.我覺得這次會讓我對這一科目更有興趣。					
28.我對於在這次活動的學習經驗感到快樂、滿足。					
29.這次(這類)活動讓我更願意有課堂參與的表現。					

(五) 英語能力

30. 我目前所通過最高等級的英文檢定是以下哪一個、通過成績為何?:

☐ 全民英檢: _____

☐ 多益: _____

☐ 雅思(IELTS): _____

☐ 托福(TOEFL: iBT): _____

	相當 吃力 1	吃力 2	中等 3	優良 4	相當 優良 5
31.在以全英語授課的專業科目課堂上，我認為我在英文「聽」的能力上面的表現為_____。					
32.在以全英語授課的專業科目課堂上，我認為我在英文「說」的能力上面的表現為_____。					
33.在以全英語授課的專業科目課堂上，我認為我在英文					

「讀」的能力上面的表現為_____。					
	相當 吃力	吃力	中等	優良	相當 優良
34.在以全英語授課的專業科目課堂上，我認為我在英文 「寫」的能力上面的表現為_____。	1	2	3	4	5

問卷版本: B1

問卷編號: _____

姓名: _____ (只為研究目的使用，完全不影響課業表現的成績，請放心誠實填寫。)

Rubrics for Choice of City Versatile (3 researched dimensions: self-study/self-directed learning, critical thinking, team-work)

Student's Name: _____

Code: _____

Self-study (self-directed learning)	Scores				
Items	1	2	3	4	5
application of what was learned in class in the comprehension of the game scenario 能運用上課所學的理论來理解遊戲的情境					
shows evidence of searching further information (or examples) to argue his points of views 能額外找尋資料來支撐自己的論點					
shows evidence of obtaining multiple solutions to the game scenario 針對遊戲情境能提出多種解決方案					
drives himself to the limits of his knowledge and abilities 在遊戲中能盡全力					
If necessary, seeks counseling (usually from the lecturer) to get better prepared 如有必要，對外尋求(授課老師)協助來準備這次的角色扮演					
make efforts to improve 對於自己能力不足的部分，能努力改進					

Critical-Thinking	Scores				
Items	1	2	3	4	5
can analyze what the problems that his role is facing 能分析所扮演角色所面臨的問題					
can interpret other roles' objectives and positions given by the game scenario 能理解其他角色的訴求和處境					
is able to reason his argument 能論述自己的觀點					
is able to response other roles' argument 能回應其他角色的觀點(包含同意與不同意/consent and dissent are both included)					
is able to identify allies and opponents which are set in this game scenario 能找出其他角色之於自己所扮演角色之互利與衝突的關係					

is able to propose or suggest solutions to problems 能於遊戲當中提出解決問題的看法/提案					
is able to explain to or persuade other roles to consent his proposal 能於遊戲當中解釋或說服他人同意自己的提議/看法					
is able to negotiate (bargain) in accordance with changing situations on the table in order to achieve his goals 能與其他角色進行談判以達成目的					

Team-work	Scores				
Items	1	2	3	4	5
accepts decisions made by the group (however, he must have striven for his objectives) 能接受大家做的決議(但是，必須於過程當中爭取過他所想望)					
respects other roles' opinions 能尊重其他角色的意見					
help roles who lag behind 能協助無法暢所欲言的其他角色					
is capable of communication, coordination, and conflict resolution in this game 能溝通、協調、化解遊戲中出現的紛爭					
is capable of facilitating collaborative practice in this game 能在遊戲中，為了共同的目標而努力					

課程進行時之照片(含教具與教學法)與說明

一、小組討論



4 位~6 位同學組成小組，針對上課給的議題，進行討論。



小組討論之後，必須於海報紙上，條列整理討論結果。

二、小組報告



小組輪流上台進行報告，報告的時候，會鼓勵同學輪流發言，另外，報告結束之後，會進行Q&A，其問題可以來自於教師，也可以來自於其他組別的同学。

三、桌遊



桌遊-Tourism Tycoon-為研究者所設計的一套類似大富翁的遊戲。每位學生會有一筆相同的基金，各自決定於遊戲當中購買哪一個縣市，並且決定蓋哪一種觀光設施或者基礎設施。同時，機會與命運也是觀光產業會面臨的機會和風險與環境衝擊等情境。



學生翻了機會/命運卡後，謹慎閱讀上面的文字。



學生擲骰子以便決定能與 game map 上前進的格數。學生於桌遊進行期間，充滿歡笑，能寓教於娛樂。而桌遊也是讓同學體會觀光發展計畫、觀光發展衝擊等理論。

四、PBL 角色扮演-Choice of City Versatile



Choice of City Versatile 是研究者設計的問題導向情境學習的教學活動；一共有 12~13 個角色 (依照每一次學生人數不同而調整角色)，每位同學需要以抽籤的方式來決定所要扮演的角色，角色包含縣長、鎮長、村長、飯店開發商、村民、環保團體、記者、專業人士(主要是營建專業和財務專業人士)。基本的故事架構是 City Versatile 當中的 Township Ace 裡面的 Village Miracle 意外找到溫泉的資源，鎮長因此邀請各觀光發展的利益關係人，參與會議，共同討論出未來的觀光發展方向。每一位角色都有一個只有他自己知道的狀態和待解決的問題，例如，鎮長跟飯店業者是好朋友，他很需要飯店業者能獲得縣政府的允許開發的執照，而他也為了要連任，提出蓋纜車的構想，也必須能夠獲得資金的挹注和村民的支持。然而，角色之間存在衝突，例如，環保團體認為溫泉水不該只有部分業者享用，而且也不該無限開發，可能造成環境上的浩劫；同時，纜車的預定地本身是稀有蝴蝶物種的棲息地，蓋了纜車也會影響其生態環境，因此，各持主見的角色們，必須於 PBL 角色扮演的活動當中，說服、溝通、協調出最終大家都可以接受的決定。

而除了溫泉是新發現的觀光資源之外，題目當中還暗藏水患危機，然而，只要治水工程能進行，其河流可以進行其他的水上活動，也會是一個潛在的觀光資源。這一部分，有待同學從角色扮演的過程當中，自行發現而提出來共同討論。

再者，預算有限，其優先順序的安排，也有待同學得出答案



雖然角色扮演有一定的難度，過程當中，學生還是可以找出樂趣。



同學侃侃而談，其他角色仔細聆聽。



飾演環保團體的學生試圖說服在場的其他角色。

Focus Group Discussion Questions – Tourism Resource Management

1. 課程上整體的評價。活動上特別喜歡以及特別不喜歡者。
2. 針對課程的進行方式與以往 lecture 比例多一點的方式來說，同學的適應和看法。
3. 對於課堂活動上的意見：理論的講述、新聞議題的討論、桌遊、服務學習、role play。
4. 課堂設計上對於自主學習、批判思考、團體合作的影響(正面、負面)。
5. PBL 的主要目的是為了能夠有解決問題的能力，如果以解決問題來說的話，大家對於面對問題之後，會有什麼樣的反應和思考方向？

請評估自己過去(一學期前)跟現在(這學期)在於面對課堂時，老師們所丟出來的問題，是如何回應(反應)? 有不同之處嗎? 不同處的原因，你覺得是來自哪方面?
6. 課程設計上，語言能力會是很大的影響要素嗎?
7. 你覺得影響你上課表現或者上課態度和課堂評量的原因是什麼?

淡 江 大 學
107學年度第2學期蘭陽校園一般性課程教學評量結果分析統計表(供教師參考)

頁 次： 2
製表日期： 2019/06/20

發聘單位：TQIX 觀光系			教師代號：145108 教師姓名：紀珊如			開課系年班：觀光二 P			開課序號： 3805 科目名稱： 觀光資源管理				應填答人數： 37 人 回 收 數： 32 份 回 收 率： 86.49 %								
題 號	題 目	評量尺度： 6 5 4 3 2 1 非常同意-----非常不同意	各 尺 度 填 答 人 數						各題平均數／標準差				各構面平均數／標準差								
			6	5	4	3	2	1	個 人	本 系	本 院	全 校	構 面	項 目	個 人	本 系	本 院	全 校			
1	我學習到這門課的相關知能		22	8	1	1	0	0	5.59 0.71	5.49 0.85	5.40 0.99	5.40 0.99	學習效果	原始	5.61 0.70	5.48 0.87	5.38 1.00	5.38 1.00			
2	這門課讓我有所收穫		23	7	1	1	0	0	5.63 0.71	5.46 0.89	5.35 1.02	5.35 1.02		調整	5.73 0.44	5.58 0.67	5.46 0.86	5.46 0.86			
3	這門課的老師教學認真		24	6	1	1	0	0	5.66 0.70	5.51 0.86	5.42 0.99	5.42 0.99	專業態度	原始	5.64 0.69	5.51 0.86	5.42 0.98	5.42 0.98			
4	這門課的老師有充分的教學準備		23	7	1	1	0	0	5.63 0.71	5.51 0.86	5.43 0.98	5.43 0.98		調整	5.77 0.42	5.61 0.67	5.51 0.84	5.51 0.84			
5	這門課的教學方法能激發我的學習動機		22	8	2	0	0	0	5.63 0.61	5.40 0.96	5.30 1.06	5.30 1.06	教學方法	原始	5.61 0.65	5.42 0.95	5.31 1.06	5.31 1.06			
6	這門課的教學方法有助於我的學習		22	8	1	1	0	0	5.59 0.71	5.43 0.94	5.33 1.06	5.33 1.06		調整	5.71 0.45	5.52 0.75	5.41 0.91	5.41 0.91			
7	這門課的教學內容符合教學目標		23	7	1	1	0	0	5.63 0.71	5.51 0.86	5.42 0.98	5.42 0.98	教學內容	原始	5.61 0.70	5.49 0.87	5.41 0.98	5.41 0.98			
8	這門課的教學內容充實		22	8	1	1	0	0	5.59 0.71	5.48 0.88	5.40 0.99	5.40 0.99		調整	5.73 0.44	5.60 0.67	5.50 0.84	5.50 0.84			
9	老師在教學時，不會因學生的性別而有不當的差別待遇		24	6	1	1	0	0	5.66 0.70	5.50 1.06	5.44 1.14	5.44 1.14	性別平等	原始	5.67 0.69	5.51 1.04	5.45 1.12	5.45 1.12			
10	老師在教學時，不會因學生的性傾向而有不當的差別待遇		25	5	1	1	0	0	5.69 0.69	5.52 1.03	5.46 1.11	5.46 1.11		調整	5.80 0.40	5.66 0.72	5.59 0.85	5.59 0.85			
11	整體而言，我對這門課感到滿意		24	6	1	1	0	0	5.66 0.70	5.48 0.89	5.37 1.03	5.37 1.03	※11題得分不計入評量。								
備註： 1. 應填答人數=正式選課人數-(扣考、休退及當學期註冊資料不存在者)人數 2. 回收率未達50%之課程均不列計於發聘系、發聘院及全校平均數與標準差之計算。 3. 平均數愈高表示學生對於該題項同意程度愈高；標準差表示學生在勾選該題項分數的離散程度，數值愈小表示學生看法較一致。 4. 第1~2題歸屬為學習效果構面、第3~4題歸屬為專業態度構面、第5~6題歸屬為教學方法構面、第7~8題歸屬為教學內容構面以及第9~10題歸屬為性別平等構面。 5. 調整：各題去除排序前後各 5%意見後，以剩餘數值計算構面內所有題項之平均數，再與原始平均數相較取高值。 6. 教學總分：為學習效果、專業態度、教學方法與教學內容四構面之平均值。														教學總分	項 目	個 人	本 系	本 院	全 校		
																原始	5.62 0.69	5.47 0.89	5.38 1.01	5.38 1.01	
																調整	5.74 0.44	5.58 0.69	5.47 0.87	5.47 0.87	

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