

The Effectiveness of Scenarios and the Socratic Method in Teaching Law to Construction Students

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ABSTRACT

Is the use of scenarios combined with the Socratic Method an effective method to teach legal subjects to non-law students in one university's building and construction programme? The scenarios are intended to (1) enable students to understand the legal theories through the practical application of those theories to problems posed in a scenario; and, (2) stimulate reasoning, analysis and critical thinking amongst students accustomed to memorizing handouts of PowerPoint slides. Both qualitative and quantitative data were gathered and analyzed to determine the effectiveness of the use scenarios and the Socratic Method in a first-year, entry-level, core law module. Preliminary research appears to indicate that the former goal (of providing a practical application and understanding of theories) was achieved to a certain degree while the latter goal (of promoting analysis and critical thinking skills amongst the students) was achieved to a lesser degree. Further research is required due to time constraints in the original study. Moreover, as a sub-group of the subject students will be repeating the module, a rare opportunity presents itself to delve into this question in more detail.

SUMMARY

Much research has been conducted on the best pedagogical methodologies for teaching in particular and education in general. Much of the cited research on this topic has been published ten or more years ago. One queries whether any changes have occurred in the interim as at least several new generations of students have passed through the education system. We should now conduct follow-up studies to evaluate the evolution of pedagogical methodologies, particularly in relation to Hong Kong university students.

This article seeks to enter into this void by providing an overview via the experience of one American lawyer teaching law to first-semester, first-year Hong Kong students enrolled at a tertiary institution's building and real estate programmes. Is the use of scenarios coupled with the Socratic Method an effective teaching method? Is the lament of some Western-trained and Western-educated observers justified that it is very difficult to teach *how* and *why* rather than *what* to seemingly lazy, disinterested, and passive students who are ill-prepared for university learning? Both qualitative and quantitative methodologies were used to examine the effectiveness of scenarios and the Socratic Method. The proper lawyerly conclusion is *yes* and *no* based on the conflicting preliminary data.

INTRODUCTION

Law intrudes into nearly every daily activity, whether or not we notice this intrusion. For example, travelling to work on public transportation involves a contract relationship between the individual and the employer, and, the individual and the public transportation provider. During the ride to work, there may be instances of tort law involved, such as the nuisance of a noisy cell phone conversation or a loud iPod; or, being jostled in a crowded public conveyance; or negligent driving behaviour of a motorist.

Likewise, the law significantly affects the construction industry. Possible professional negligence claims affects architects and engineers in their work tasks and in their dealings with clients. Architects and engineers also confront other legal issues such as zoning and building regulations. Contractors, both main and sub-contractors, confront issues relating to employment (employee contracts; medical benefits; insurance; etc.); site safety regulations; building regulations; licensing regulations; etc. Indeed, as aptly stated in this Journal's call for papers:

Law constitutes a significant element of most engineering and construction programmes. This is wholly appropriate; the problems which challenge construction professionals in practice tend to have both legal and technical dimensions, each of which require resolution. Yet the natural inclination, predilection and, in some cases, aptitude of engineering and construction students is generally geared towards their core construction discipline rather than law. This places particularly high demands on the educators of such students, especially in terms of learner motivation and the acquisition by the learner of a deep understanding of legal principles. Moreover,

differences in pedagogic tradition and expectation between law and non-law disciplines can give rise to additional complexities in the educational context. ...

As a result of the impact of the law's pervasiveness, many building and construction-related teaching programmes include a module or course on legal matters.

A colleague of mine posited that problem-based learning in law can be successful and advocated an expanding role for problem-based learning in law. (Liddle 2000) Whether those findings can be replicated in my classes remain to be determined for several reasons. One reason is that the students involved in the colleague's study were first-semester, final-year students rather than first-semester, first-year students in the instant case. Secondly, the prior study involved undergraduate degree students in the Translation and Chinese programme, meaning that the students' comprehension and use of English should be better than some of the students in my study. Finally, the prior study involved a total of 45 students compared with the approximately 180 in the instant case.

This paper examines the result of my experience and observations in relation to teaching a foundation law course to first-year university students. This paper consists of four sections: the first section provides brief background data as to the school, the subject students of this study and the lecturer. The second section of this paper presents the research methodology and the research data collected. The third section of the paper analyses the data in an attempt to determine whether the pedagogical methodology was suited to the situation. The final section is the conclusion.

SECTION I: BACKGROUND

This section provides background information concerning the university, together with the relevant department and course details; the demographics of the students; and, their lecturer. Each will be presented respectively in brief detail in order to provide the necessary context for the following sections of this paper.

A. The Polytechnic University of Hong Kong [PolyU]

Established 70 years ago as the Hong Kong Polytechnic, the institution achieved *university* status in 1994. Presently,

PolyU is the largest government-funded tertiary institution in Hong Kong, with a total student headcount of about 27,200. With 26 academic departments and units grouped under six faculties, as well as 2 independent schools, PolyU has a full-time academic staff strength of approximately 1,250. PolyU's total consolidated expenditure budget of the University exceeds HK\$4 billion per year.

<http://www.polyu.edu.hk/hro/job.htm> (Last visited 23 January 2008).

“It is a prime aim of the University to equip students not only with professional competency but also the ability of independent thinking, good communication skills and a global outlook.” http://www.polyu.edu.hk/cpa/polyu/the_university/overview_e.php (Last visited 15 Feb. 08).

The Department of Building and Real Estate is among the oldest in the university and is part of the Faculty of Construction and Land Use. “Increasingly industry is looking for graduates who can work in an interdisciplinary way to create innovative solutions to the challenges of the physical and economic environment of the 21st Century.”

http://www.bre.polyu.edu.hk/frameset/frameset_dept.html (Last visited 23 January 2008). It is both my goal and that of the department to produce graduates capable of independent

analysis and reasoning skills which are utilized across interdisciplinary fields. It is hoped that students will be able demonstrate flexibility, creativity, and, disparate viewpoints in forming their own conclusions.

The focus of this paper is an entry-level module, *The Legal Context for Construction and Real Estate*, which serves as a foundation course and a pre-requisite for successive law modules within the department. As such, all first-year students in the following programmes of study are required to achieve a passing grade in this core module before being allowed to enroll in other required law-related modules: Higher Diploma Building Technology and Management (Engineering); Higher Diploma Building Technology and Management (Surveying); BSc (Hons) in Property Management; and, BSc (Hons) in Surveying. The contents of this module encompass subjects concerning the Hong Kong legal system, contract, tort, property, dispute resolution, and, legal reasoning. Approximately 180 students enrolled in this module which is offered only in the first semester of each academic year.

The syllabus for BRE 206 provides the following information:

- Contact Hours: 21 hours of lecture, 21 hours of tutorial
- Intended Learning Outcomes specific to this module include:
 - Understand and evaluate sources of Hong Kong Law
 - Apply the basic concepts, principles and remedies in the law of contract and tort ...
 - Use knowledge and reasoning skills to solve legal problems out of factual situations
 - Reflect ... their legal knowledge in the societal context
 - Communicate effectively
- Intended Learning Outcomes generic to all modules in this department include:
 - Skills to identify, analyze and solve problems
 - Effective communication skills

- To transfer and replicate knowledge and skills to other industries

The teaching strategy involves students learning intellectual and academic skills necessary for legal study, in parallel with learning key concepts for later study:

Learning how to use law to identify legal issues – Topic focus: understanding legal concepts and rules.

Learning how to apply legal knowledge – Topic focus: understanding legal argument.

Critical Judgment – Topic focus: justifying conclusions.

Problem-solving – Topic focus: integrating learning.

A two-hour examination comprising a combination of breadth and depth problems designed to assess knowledge, understanding, **application** and **analysis** of legal concepts, rules and principles. [Emphasis added] http://www.bre.polyu.edu.hk/bre_subjects/index.htm and

http://www.bre.polyu.edu.hk/frameset/frameset_course.html [Both last visited 25 January 2008].

B. The Students

There is the general impression that Hong Kong students are passive, exam-oriented and grade conscious. (DAVIES & LEE) Other observations included:

- HK assessment systems which “are not really continuous – you can miss a few lessons and still catch up”;
- students here have less choice than overseas when picking their topics – so they are less interested;
- ...
- overseas, the [Microsoft PowerPoint presentations] have just a few slides, **in HK there are many and the lecturer just reads them –**

- overseas you don't get all the information unless you go to the lecture, **in HK you can get the [Microsoft PowerPoint slides] with everything on them;**
- **in HK more presentations**, less discussion, overseas less presentation, more discussion;
- teachers overseas make eye contact, and jokes, they are close to students. **In HK no eye contact, no feedback on classroom presentations, no real life issues, poor English and students always told to refer to the textbook when asking questions.** (Emphasis added.) (DAVIES & LEE @ 5-6)

The academic demographics of the first-year students enrolled in this department are categorized according to the programme stream (Higher Diploma and Degree), as the differing programmes have diverse admission criteria. In short, the Higher Diploma students are:

The Degree students are:

A detailed report of the students' academic backgrounds is set out in Appendix 1-A.

The socioeconomic demographics of the whole student body at PolyU has been analyzed by the school's Student Affairs Office for each incoming year of students since at least the 1999/2000 academic year.¹ The latest demographic data is for the Academic Year 2007/2008 and the Executive Summary is in Appendix 1-B. A copy of the full report may be found at the Student Affairs Office's website:

http://www.polyu.edu.hk/sao/content/publications/survey_report.php

¹ See https://www2.polyu.edu.hk/saostaff/profile/profile_99.pdf

From the survey's Executive Summary, the following points are of note:

- 85.9% response rate
- 85.6% of the respondents intended to take up part-time employment during term time [of these respondents, 68.9% needed the part-time income to finance basic study and living expenses]
- 76% had a very strong expectation of acquiring professional qualifications relevant to one's career
- 61.3% of the respondents rated themselves as *average* in English language
- a further 22.3% of the respondents rated themselves as *weak* in English language

It is within these constructs of this paradigm that a lecturer must work. Yet, another facet not to be ignored is that of the particular lecturer's frames of reference – my background, attitude and approach to teaching.

C. The Instructor

My teaching philosophy is that students must possess an interest in learning, rather than simply possessing an interest in passing the course. Students will not be reprimanded where an attempt is made, but result in an incorrect reply. Reprimands of one type or another would be made where a student made no effort. This philosophy is intended to endow students with a *deep approach* to learning, such that skills learnt in the module will serve the students in future classes and future employment. A *surface approach* of simple memorization and regurgitation of supposedly *learned* information is insufficient.

The goal is comprehension to the degree that application or manipulation of the information is possible. (Bligh 2000 at 105)² In other words, a student's ability to apply a particular legal principle denotes comprehension and understanding of the taught materials. This ability would demonstrate a student achieving the module's goal of attaining level 4 (Analysis) or level 5 (Synthesis) of Bloom's Taxonomy rather than level 1 (Knowledge). A more current interpretation of Bloom's Taxonomy has retained the six levels of the original but has renamed some of the levels. (Anderson and Krathwohl 2001) Under the current interpretation, level 1 becomes Remember, level 4 is Analyze, level 5 becomes Evaluate and the highest level is Create.

This teaching philosophy is derived from two elements. The first element is the teaching approach to which the lecturer has been exposed: no coddling; no-nonsense approach. Students are in university to learn; lecturers are in university to teach. Students in university are individuals of legal age who should bear some responsibility for their education. Lecturers should not serve at the beck and call of students. To do so would, in effect, render a lecturer to be a slave to students. To prescribe to the notion that students are the consumers to whom lecturers must make the deliverables is not acceptable, for to acquiesce to this prescription is to allow the "inmates to run the asylum".³ The second element is teaching approach where student participation, in general, is encouraged and expected. Both elements require students to assume the role of a disciplined, responsible adult who actively engages in self-learning through studying.

² BLIGH, *supra* note 19, at 61. (citations omitted) *See also, infra* note 28.

³ *See* J.A. Johnson, *Instruction: From the Consumer's Point of View*, in C.B.T. LEE, *IMPROVING COLLEGE TEACHING* (1967) and *contra* BLIGH, *supra* note 19, at 194 *et seq.*

D. The Teaching Methodology

The semester at PolyU consists of 14 weeks. During these 14 weeks, I delivered a 1.5 hour mass lecture for the nearly 180 students on Friday mornings, commencing at 9 AM.⁴ The students were also divided into tutorial groups, ranging in size from approximately 20 to 30 students. Each tutorial group met once a week for 1.5 hours. I conducted three tutorial groups and the remaining tutorial groups were handled by a part-time, visiting lecturer who is also a practicing barrister in Hong Kong.

I used scenarios integrated with the Socratic Method both in lecture and in tutorial sessions. Scenarios are designed to test the students' ability to think and to apply the learned material, *i.e.*, to analyze the facts in the given scenario and using those facts along with the appropriate legal concept to reason to a logical conclusion. Somewhat akin to *case studies* or *problem-based learning*, the scenarios are intended to introduce students to problem-solving skills. These skills involve such abilities as: the identification of relevant facts, issue(s), and legal principle; the application of that legal principle to the facts; and, finally, the arrival at a conclusion.

⁴ As BLIGH, *supra* note 19, at 54 notes:

... most people are more alert on Monday and Tuesday than on Friday. Yet these facts are commonly ignored by both teachers and those who organize their timetables. Since attention to lectures is more difficult in the afternoon and evening, lectures should be shorter, more varied, and more stimulating, or give way completely to small-group teaching or other active methods of learning, at that time.

The scenarios began with a simple fact pattern involving one or two characters and eventually progressing with time to complicated fact pattern involving multiple characters and several areas of law. Students were required to examine these facts and determine the legal issues involved and analyze the possible legal arguments for and against a particular character in the scenario. For this particular level of students, scenarios were unlike case studies in that the scenarios were not a complete case to be analyzed and studied. Unlike cases studies, the scenarios did not involve a problem and a solution for students to examine. Similarly, the scenarios used for this particular set of students are dissimilar to problem-based learning in that there is little or no independent learning or independent study. Information continued to be conveyed through the lecture; the scenarios at the end of lecture and in tutorial sessions were intended to explain, amplify and apply the information provided in the lecture.⁵

In sum, the term *scenario* as used in this paper refers to a set of facts provided to the students. It is from this set of facts that each individual student must determine the pertinent details, decide the relevant law, analyze possible application(s) or interpretation(s) of the law, and, come to a reasonable, logical conclusion. This process, where and when necessary, would be prompted by questions from the lecturer or tutor. As such, *scenario-based* teaching is somewhat similar, but not identical, to the terms *case studies* or *problem-based* teaching. See, e.g., Liddle, Student Attitudes, *supra* note 1, at 164 which explains problem-based learning [PBL]:

At its most rudimentary level, PBL is an instructional method characterized by the use of real-life problems as a context for students to learn problem-solving skills and acquire subject knowledge. The basic outline of the PBL process is this: encountering the problem, problem solving with clinical reasoning skills and identifying learning needs in an interactive process, self-study, applying newly gained knowledge to the problem, and summarizing what has been learned.

⁵ See also SARAH HALE, CASE BASED LEARNING: REVIEW OF GOOD PRACTICE (2005) http://www.c-sap.bham.ac.uk/hottopic/FDTL/practice_review.pdf (Last visited 20 February 2008); Jenny C. C. Chung and Susanna M. K. Chow, *Promoting student learning through a student-centred problem-based learning subject curriculum*, 41 INNOVATIONS IN EDUCATION AND TEACHING INTERNATIONAL (2004); PROBLEM-BASED LEARNING: CASE STUDIES, EXPERIENCE AND PRACTICE (Peter Schwartz, Stewart Mennin, and Graham Webb, eds., 2001).

...

A commonly held misconception is that problem solving and problem-based learning are the same. They are not. The reading of prescribed cases and discussing them using the Socratic method to elicit a rationale for the case, reconcile competing principles, or apply a principle to a set of facts and, then, analyze fine distinctions between judgements is not PBL. In PBL, the problem is presented to the students before the knowledge base, and the goal is for students to decide what is to be learned. ...

The Socratic Method is the method used by the Greek philosopher Socrates who taught his students by asking questions which prompted or led students to an answer rather than providing an answer.⁶ This teaching method is widely used in American law schools and epitomized in the 1973 movie, *Paper Chase*, which depicted life of first-year law students at Harvard University.⁷

Although not explained to the students, they were advised in their Course Manual, in lecture and in tutorial that sessions were to be interactive and student participation is mandatory.⁸

The students' progress can be marked by their ability to answer these questions:

⁶ See tongue-in-cheek comments about the "Socratic Method" at <http://www.youtube.com/watch?v=z2sMJwxLd-M&feature=related> from the *All About Law School* DVD. (Last visited 23 January 2008).

⁷ For a sampling, see <http://www.youtube.com/watch?v=3dcwC6exIWY> (Last visited 23 January 2008).

⁸ BLIGH, *supra* note 19, at 10-11 notes:

... if students are to learn to think, they must be placed in situations where they have to do so. The situation in which they are obliged to think are those in which they have to answer questions, because questions demand an active response. ... The best way to learn to solve problems is to be given problems to be solved. ... the best way to develop

1. What would you do in this situation? [This question is intended to test a student's ability to communicate or express a logical analysis of a factual scenario.]
2. What does it mean? [This question is intended to test a student's comprehension of the taught material.]
3. Why? [This question is to test a student's ability to integrate the foregoing Items 1 and 2 into a reasoned analysis and conclusion.]

This pedagogic technique is intended to lead to active learning where students learn more and retain more of that learning when self-actualized rather than being *spoon-fed*. Selection of this pedagogic technique arises from the desire to *cover all the bases*. The first, and the primary, base is the generally-accepted perception that local students are primed only for rote learning in order to obtain successful examination results.⁹ The secondary base is the

powers of analysis is to keep analyzing situations and data. ... learning to think is not an absorption process.

.... Practice with basic simple problems improved, and made possible, the solutions to more complex ones. Gagne (1965) points out that when students are given a problem to solve, they may not only apply principles but also combine them to form new higher-order principles. This ability is essential to the development of a student's powers of thought. ...

⁹ As noted by J.C.C. Chung & S.M.K. Chow, *Imbedded PBL in an Asian Context: Opportunities and Challenges in Implementing Problem-Based Learning* in PROCEEDINGS OF THE FIRST ASIA PACIFIC CONFERENCE ON PROBLEM BASED LEARNING (1999):

... Asian students are often seen as "rote learners" (Biggs, cited in Watkins, Reghi, and Stilla, 1991). Chan (1999) pointed out cultural values and Confucian beliefs contributed to the shaping of Chinese thinking and classroom behaviours of rote learning. ...

Additionally, the expository teaching-learning methods adopted in most primary and secondary education shape students into achievers (Biggs, 1991).

Id. at 35.

... Learning behaviours as a result of the expository teaching-learning mode are passive listening, note-taking and getting teacher's tips of examination content (Biggs, 1991). These learning behaviours are so well established that students internalise them as the golden rule of learning. ...

Students' insecure feeling about the scope and accuracy of what they have learned is probably due to their inclination towards a "spoon-feeding" learning pattern, in which teachers provide students with every piece of information. Being brought up in such a learning environment, students feel uneasy when they are asked to search for the answers and solutions themselves. ...

Independent and self-directed learning are new learning experiences for many Asian students. ...

Another constraint imposed by the learning task was the language of instruction. As a university policy, students were required to conduct in-class discussions and presentations in a second language. Some students felt their learning was negatively affected in terms of both taking on a more active role and understanding the concepts. Both of these processes are important for students to develop a more independent and critical learning approach. This is a finding very similar to that of Watkins, Biggs and Regmi (1991) on a group of Hong Kong students of psychology and education.

Id. at 43-44.

contention that local students learn not from rote memory but by repetition.¹⁰ By repeating the delivery of information in several forms, it is hoped that the repetition and the variety of delivery would assist the students in understanding and comprehending the material.

In summation, both active learning as well as reflective learning are intended to be available to the students to use in this module. By resorting to the utilization of both these learning styles, it is hoped to maximize the students' learning potential. "Knowledge is not enough. Students need practice in solving problems and apply principles."¹¹ Recognizing that traditional lectures generally do not allow much student thought or rehearsal of materials, my lectures were intended to deliver the information or content knowledge and then to explain in detail the application through a scenario as a transition to the upcoming tutorial on the subject.¹² In the tutorial, further elaboration on the subject is delivered through use of a scenario and the Socratic Method as explained below.

¹⁰ See, e.g., DAVID A. WATKINS & JOHN B. BIGGS, *THE CHINESE LEARNER: CULTURAL, PSYCHOLOGICAL, AND CONTEXTUAL INFLUENCES* (1996); and, David A. Watkins & John B. Biggs, *The Paradox of the Chinese Learner and Beyond* in W&B, *supra* note 12.

¹¹ BLIGH, *supra* note 19, at 8. For the different levels of learning, see *TAXONOMY OF EDUCATIONAL OBJECTIVES: HANDBOOK I: COGNITIVE DOMAIN* (Benjamin Bloom ed., 1956).

¹² Mainly, a surface approach in the first section of the lectures, followed by rehearsal of the materials in the latter portion of the lectures, eventually transitioning into a deep approach in the tutorials.

... Marton and his disciples (1984) have described as having a "surface level approach" students who want lectures to cover the ground, who concentrate on memorizing detail, and who expect to find the "right answer" to questions. These contrast with students adopting a deep approach, who are concerned with the lecture's central point, what lies behind the argument, what it boils down to, the logic of the argument, getting the whole picture, and challenging the conclusions. Parlett (1970) described

1. Lectures

Whenever possible, the lecture consisted of two sections. The first section was a formal lecture presented with the assistance of PowerPoint slides. This section constituted the definition and requirements of a legal principle [the theoretical aspect]. The second section, reserved for approximately the last ½ hour of the lecture, was an attempt at the practical application of the theory just presented. When required, the appropriate PowerPoint slide would be projected on the screen to assist the students' recall. The purpose for this structure of the lecture is intended firstly to provide the students with the necessary information or content knowledge during the first hour. The second section of the lecture is intended to access and to aid the students' comprehension. Thus, during the last ½ hour of the lecture, there was an attempt at application of the presented materials to a particular factual scenario.¹³ "Knowledge *used* is better remembered."¹⁴

"syllabus bound" students, who only study what they are required to study, want the lecturer to give clear instructions, do not often question things they hear from professors in lectures, and are more focused on exams than interested in their discipline. "Syllabus free" students, by contrast, explore ideas not mentioned lectures, try to think of a better way of doing something than what is described in a lecture, and generally display independence of mind. ...

... in most disciplines it is the duty of faculty to try to wean students away from craving dogma and toward rational independence of thought.

BLIGH, *supra* note 19, at 200.

See also *infra* note 33 concerning rehearsal and *supra* note 21 concerning *surface* and *deep* approaches to learning.

¹³ BLIGH, *supra* note 19, at 39-40 confirms the soundness of this practice:

A simplified example of this process:

The definition of *theft* would be provided during the lecture. An explanation of the elements required for theft to occur would also be examined. A practical demonstration would follow thusly:

The definition of theft would be placed on the screen: *Theft is one person taking the property of another person without permission.* I would then walk amongst the students and collect some of their possessions, such as pens, cell phones, watches. [To date, no student has had any reaction to this taking other than perhaps puzzlement.] I would then return to the lectern asking whether theft has occurred. Using a word processing program to hi-lite words in the definition, the class would be asked a series of questions such as:

1. What is property?
2. Who has title?
3. What does *without permission* mean and why?
4. What if a trained dog or a trained monkey took the property rather than a *person*? Justify or explain your answer.

... it is important that the practice of skills by students should closely follow the theoretical discussion. Indeed, the immediate provision of situations in which the student must apply information, after hearing it in lecture, is an important and underused strategy. Neurologically, it encourages spreading activation so that connections are between concepts. It contextualizes the subject matter, gives it meaning, and makes it relevant. ...

¹⁴ HOWARD S. BARROWS & ROBYN M. TAMBLYN, PROBLEM-BASED LEARNING: AN APPROACH TO MEDICAL EDUCATION 6-7 (1980).

Questions 1 and 2 relate to the students' comprehension of principles of property law: ownership, possession, personalty, realty, incorporeal rights, etc. The third question is intended to generate the most discussion, particularly from the students' whose property has been taken. The third question is intended more for reflection after the lecture.

Furthermore, recognizing that law is an art more than a science, I attempted to make an analogy to the field of mathematics for those students who are so inclined. Mathematical formulae are stated just as laws are stated. However, in a mathematical formula, there are variables. The outcome of that formula is dependent upon these variables. Likewise, the application of law will be dependent upon the variables – the factual situation of each case.

An example:

There are five factors required to be present in order to have a valid contract. Expressed as an mathematical formula, the statement may be $a * b * c * d * e = \text{contract}$, where the variables must be a positive integer.

Thus, in some instances of mathematics, the outcome is dependent upon the number used in the variable. In some instances involving law, the outcome is dependent upon the facts applied to the particular statute.

Consequently, we sought to make the connection between:

1. a particular mathematical theorem and,
2. the application of a legal rule or law to a particular set of facts.

In order to apply a mathematical or a legal rule, one must firstly determine the applicable field within the discipline. For mathematics, one needs to ascertain whether it might be calculus, algebra or geometry. For this purpose, assume the applicable field is geometry. The next step is to determine the particular rule which would apply. Thus, the lesson would be:

Pythagoras' Theorem concerns right triangles. We would then analyze the definition and/or requirements of a particular theorem as we would with a law. With Pythagoras' Theorem, one would define and discuss the meaning of this rule: "The sum of the squares of the lengths of the shortest two sides of a right triangle equals the square of the hypotenuse, which is the length of the longest side of a right triangle".

Then the following questions are asked: "What is the meaning of this rule? In other words, how does this rule apply?" The answer to this question is the equivalent in legal studies of applying the facts to the law. In other words, in the given factual situation of the scenario, which field of law is applicable? If the scenario involves contract law, what aspect(s) of that field of law is/are applicable?

The Pythagoras Theorem only applies to right triangles, *i.e.*, triangles with a 90 degree angle. Then, to ascertain comprehension and the ability to manipulate this newly acquired knowledge, one asks the students: "Can an isosceles triangle also be a right triangle?" Assuming the legal scenario involves the formation of a contract: Does an invitation to tea constitute a

legally-binding agreement? The equivalent queries would be: “What elements are required for a valid contract? Are all those requirements satisfied in the present scenario?”

No notes of the lectures were provided to the students.¹⁵ The reasons were several:

¹⁵ This is perhaps the most commented upon/criticized aspect of my teaching by students. In Hong Kong, it appears that students are conditioned to expect notes. Yet, as BLIGH, *supra* note 19, at 141 observes, this leads to habitual and indiscriminate note-taking or collection of notes. “There is a legend that if you have a mixed class of freshmen and postgraduates and you want to know which is which, say *Good morning*. The freshmen will reply *Good morning*; postgraduates write it down.” *Id.* One may add to this legend: Hong Kong students would ask for a hardcopy of the salutation. Indeed, some of my students became so desperate for notes as to resort to using their cell phones to photograph the PowerPoint slides being shown on the screen in the lecture theatre!

Yet, there appears to be no definitive study whether note-taking aids a student’s memory, much less a student’s comprehension or ability to manipulate and apply the learned materials. *See, e.g.*, the discussion and studies cited in BLIGH, *supra* note 19, at Chap. 9.

Finally, as noted, tangentially, by one research team:

Unless teachers have a strong theory of teaching, putting lecture notes on the Web is operationalising a transmission model of teaching, except this is easier to plagiarise than conventional lecturing, while the bells and whistles of *a full-blown PowerPoint presentation encourage maximum passivity in students.* (emphasis added)

John B. Biggs and David A. Watkins, *Insights into Teaching the Chinese Learner*, in W&B, *supra* note 12, at 295.

- To wean the students from their over-dependence upon lecture notes which my experience seems to indicate students tend to simply collect and memorize shortly before the examination.
- To induce a *deep approach* to learning where the students had to think about the subject information being taught
- To force the students to learn to take notes as in real life where notes are not provided at meetings, interviews, conferences, etc.
- To force the students to read the assigned materials when they can take notes, which has been proven to assist in learning and retention of assigned reading materials¹⁶
- To allow the students to listen, comprehend and reflect upon the lecture rather than trying to coordinate the handouts with the PowerPoint slide. It is intended that students' focus and organization of information not be hindered with note-taking or reading from hand-outs. Furthermore, studies have shown that given the option of listening or reading, the latter would take precedence.¹⁷

2. Tutorials

¹⁶ R. Dubin & T. C. Taveggia, *The Teaching-Learning Paradox*. Monograph no. 18 (1968) cited in BLIGH, *supra* note 19, at 8 for the proposition that unsupervised reading is superior to discussion for the acquisition of information.

¹⁷ See: <http://www animators.com/aal/studyresults.html> (lasted visited 12 Feb. 08). See also: K. M. Campbell, *Roll tape: Admissibility of videotape evidence in the courtroom*, 26 UNIVERSITY OF MEMPHIS LAW REVIEW 1445 (1996); Press Release, Carnegie Mellon University, *The Medium And The Message: Eyes And Ears Understand Differently*, Carnegie Mellon Scientists Report In The Journal Human Brain Mapping (August 13, 2001). Available at: http://www.cmu.edu/PR/releases01/010813_brainmap.html (Last visited 8 January 2008).

No lecture-type transmission of information occurred in my tutorial sessions. No formal notes were prepared purposely for the tutorial sessions. Further, no formal notes were used in the tutorial sessions. Thus, students received no notes. Where necessary, the appropriate PowerPoint slide used in the lecture immediately preceding the tutorial would be placed on the screen to assist the students' recall. A white board would be used to note information and/or to diagram the factual relationship between the parties in a scenario and/or to "mind-map" a potential analysis of the scenario.

Otherwise, each tutorial session would be free-flowing in that there was no particular structure or format which was required to be followed [other than asking at the beginning of each and every tutorial session whether there were any questions concerning the previous tutorial session or the lecture] such that students' needs and/or responses in the tutorial frequently directed the flow or emphasis of the tutorial session. At times, *decapitation* became necessary such that teaching would be directed to the few students who appeared to grasp the material in the hopes that these students at the head of the class would *trickle down* the knowledge to their peers.

Of the three tutorial groups, the Wednesday afternoon [3:00 to 4:30] group was the most active in terms of participation. The Wednesday morning [9:00 to 10:30] group was active while the Thursday afternoon [5:00 to 6:30] group at times seemed to be the least active. Consequently, there were instances where one tutorial group would be further along than another tutorial group or where one tutorial group would be concentrating on a different aspect of a scenario. Nonetheless, the main teaching points of each scenario would be covered.

3. Assessments

There were two assessments in the subject course: coursework assessment, which accounted for 30% of the grade and a final examination which accounted for the remaining 70% of the grade. A student must pass both assessments. These assessment methods are discussed below. This paper will focus upon the examination due to its greater weighting and due to good student performance assessment in the coursework assessment.

The coursework assessment consisted of a thirty-minute team presentation. Each team consisted of four to six students. The topic of the team presentation was at the discretion of the team subject only to two requirements: the topic must somehow be related to a construction-related accident taken place anywhere within the last ten years; and, the topic cannot be repeated by any other team in any tutorial group. The students were to apply their recently acquired knowledge and learned analytical skills in explaining the case and its outcome. Finally, the presentations were scheduled during the last two weeks of the semester. The purpose of such an unsupervised/undirected project was to test the students' abilities to:

1. Organize oneself with minimal instructions
2. Organize the other members of the team without direction from the tutors
3. Work in a team environment
4. Utilize one's own initiative and ingenuity, *i.e.*, creativity and cleverness, to obtain a stated goal without constant supervision or guidance from a superior [to replicate as much as possible of a real-life work environment]
5. Serve as a revision of sorts for the students

The examination consisted of an eighty-question, multiple-choice assessment which the students had 2.5 hours to complete. The multiple-choice examination comprised both scenario-based questions and short-form questions. I chose this particular format for the following reasons:

1. To relieve student anxiety over the English-language ability issue
2. To help the students direct their focus on the possible answer [which, for most questions, must be one of five possible choices]
3. To eliminate or minimize any possible subjectivity in marking essay-type examination answers
4. To eliminate or minimize any possible claims of prejudice or favouritism on my part
5. The original two-hour examination period was extended by 25% in order to allow the students an additional ½ hour reading time
6. The original examination consisted of 75 questions but five bonus questions were added to reflect that thinking processes differ.

Finally, the examination paper received extensive review by: the Department's external Academic Advisor, Examination Officer [QA] and Law Discipline Leader; PolyU's Educational Development Center's expert on multiple choice examinations; and four external examiners. In order to ensure fairness between the different tutorial groups, the Visiting Lecturer who conducted the remaining tutorial groups was also consulted.

Further discussion and analysis of the final examination results will be provided below.

Section II: The Study's Methodology

In order to obtain qualitative and quantitative data, several data collection techniques were attempted. They are set out below.

One technique involved conducting individual Student Feedback Questionnaire surveys of my three tutorial groups in order to discern whether there were any substantive statistical variations between the three tutorial groups. A further comparison was then made between the tutorial groups and the remainder of the students. A survey, an Informal Questionnaire examining a different set of criteria, was conducted for each of my tutorial groups and the remainder of the students. These surveys are intended to provide quantitative data in the form of student feedback.

A third data collection technique involved focus groups. The principal purpose of these group interviews is to gather data on the students' opinions regarding the effectiveness of the use of scenarios and the Socratic Method as a teaching method. Originally, four focus groups were planned: two groups for each level [Higher Diploma and BSc degree] further divided into a group of *active* and a group of *passive* students. Within each group, there was an attempt to have an equal representation of male and female; engineering and surveying streams [for the Higher Diploma students]; property management and surveying streams [for the Degree students]; and, grades [to the extent possible, grades ranging from *A* to *F*]. As a result of student disinterest or apathy and the resulting lack of cooperation, the intended representative nature of the focus groups was not totally achieved.

The final data collection technique involved the assistance of PolyU's Educational and Development Centre [EDC] subjecting the multiple-choice examination questions and answers to an item analysis. This data source is intended to focus on the quantitative aspect by assessing the students' performance in the examination.

A. The Quantitative Data

1. The Surveys

Two surveys were conducted in my three tutorial groups. The first survey was the department's standard Student Feedback Questionnaire [hereinafter *SFQ*]. The results of the *SFQ* are tabulated in Appendix 2. The second survey is a specially-designed, informal questionnaire [hereinafter *IQ*] intended primarily to query in more detail the effectiveness of the use of scenarios and the Socratic Method in relation to the students' learning, especially analytical and critical thinking skills.¹⁸

During Week 12 of the semester, the relatively interactive Wednesday morning group completed the *SFQ*. The official enrolment indicates a class size of 29 students, although at least one appears to have withdrawn from the course, leaving a total of 28 students. This group consisted of a combination of Higher Diploma and Degree students, 27 of the former in either the Engineering or Surveying streams and two students in the BSc property management stream. Of the total number of students, 22 completed the questionnaire, providing a response rate of 75.9%. Validity of the results might be in question due to the less-than-ideal response rate. This group also completed the *IQ*, the results of which are

¹⁸ I am thankful for the invaluable assistance of Mr. Percy Hung of EDC in assembling all the survey results.

tabulated in Appendix 2. Twenty-three students completed this questionnaire the following week. Validity of the results might be in question due to the less-than-ideal response rate.

The most interactive tutorial session usually occurred with the Wednesday afternoon group which completed the IQ on the same day as the group above. The official enrolment indicates a class size of 20 students, with a combination of Higher Diploma and Degree students, 11 of the former in either the Engineering or Surveying streams and nine students in the BSc programmes in property management or surveying. Of this number, 20 students completed the questionnaire, providing a response rate of 100%. Validity of some results might be in question due to the less-than-ideal response rate for certain questions [16 of 20 respondents equaling a response rate of 80%]. The results of the IQ are tabulated in Appendix 2. This group also completed the SFQ during the following week with a response rate of 19 or 20 students out of a total of 20.

The least interactive tutorial session usually occurred with the Thursday afternoon group which completed the IQ the next day. The official enrolment indicates a class size of 27 students. This group consisted of a combination of Higher Diploma and Degree students, 24 of the former in either the Engineering or Surveying streams and three students in the BSc programme in surveying. Of this number, 20 students completed the questionnaire, providing a response rate of 74%. The validity of results might be in question due to the less-than-ideal response rate for certain questions. The results of the IQ are tabulated in Appendix 3. This group also completed the SFQ the following week with 24 students completing the questionnaire, except for one question which one student failed to answer.

2. Item Analysis of the Examination

As previously mentioned and as per the students' overwhelming preference, the final examination consisted of 75 multiple-choice questions plus five bonus multiple-choice questions.¹⁹ Thirty-four of the examination questions were short stemmed-questions while the remainder were scenario-based questions. The examination was administered over a 2.5-hour examination period [originally two-hours but which I extended in order to afford the students a longer reading period]. The failure rate between the four programmes' students follows:

BSc (Hons) Surveying:	22.5%
BSc (Hons) Property Management:	28%
HD-BTM (Engineering):	38.7%
HD-BTM (Surveying):	40.3%.

The averaged failure rate amongst the four programme streams is 32.40%.

The examination failure rates for my tutorial groups were as follows:

Relatively interactive Wednesday morning group:	27.58%
Interactive Wednesday afternoon group:	20.00%
Relatively unresponsive Thursday afternoon group:	32.00%

The averaged failure rate for the three groups is 26.52%.

¹⁹ I am again grateful to Mr. Percy Hung of the EDC, this instance for his work in producing the item analysis.

B. The Qualitative Data

1. The Focus Groups

The focus groups consisted of twelve students displaying the following attributes:

Group 1 [session held on 29 January 2008]:

- one active male BSc (Hons) Property Management student who achieved a *C+* for the module [Wed. afternoon tutorial]
- one semi-active male BSc (Hons) Property Management student who achieved a *B* for the module [Wed. afternoon tutorial]
- one passive female BSc (Hons) Property Management student who achieved a *C+* for the module [Wed. morning tutorial]

Group 2 [session held on 31 January 2008 morning]:

- one active female Higher Diploma in BTM (Surveying) student who achieved a *C+* for the module [Wed. morning tutorial]
- one active male Higher Diploma in BTM (Surveying) student who achieved an *A* for the module [Wed. afternoon tutorial]
- one active male Higher Dip in BTM (Engineering) student who achieved a *B* for the module [Thursday afternoon tutorial]

Group 3 [session also held on 31 January 2008 morning]:

- one passive male BSc (Hons) Surveying student who achieved a *C+* for the module [Wed. afternoon tutorial]

- one passive female BSc (Hons) Surveying student who achieved a *C+* for the module [Wed. afternoon tutorial]
- one active female Higher Diploma in BTM (Surveying) student who achieved a *C+* for the module [Wed. afternoon tutorial]

Group 4 [session held on 1 February 2008 late morning]:

- one active female BSc (Hons) Surveying student who achieved a *B* for the module [Thursday afternoon tutorial]
- one passive female BSc (Hons) Surveying student who achieved a *B* for the module [Thursday afternoon tutorial]
- one passive female BSc (Hons) Surveying student who achieved a *F* for the module [Wed. afternoon tutorial]²⁰

The lecture was used to present the necessary information and then a *practical* session was used to demonstrate the lesson. This procedure was intended also to impart and strengthen the students' comprehension and analytical skills.

Examples used in practical sessions

Example #1:

When teaching the contract principles of *mistake* and *misrepresentation*, a pen is offered for sale. After reviewing the notions of *invitation to treat* and *offer* in making the pen available for sale, the pen is then *sold* to a student. However, there is no ink

²⁰ Ultimately, interviewed separately due to an unforeseen scheduling conflict.

cartridge in the pen. The class is then directed to analyze the options and arguments available to the seller and buyer, *e.g.*, fountain pens do not come with ink cartridges or ink; or, what if the seller never used the descriptive word *pen* but merely said “I have this item for sale” while holding up a see-through plastic pen with no ink cartridge?

Example #2:

In teaching the tort concepts of a *reasonable man* and *duty of care*, a demonstration is performed with the assistance of a student volunteer. I hand an eraser [*duster* to our UK and UK-related colleagues] to the volunteer. I then step back and gently tosses the eraser to the volunteer. This process continues and the students in the class are asked:

- At what distance does the conveyance of the eraser to the volunteer become unreasonable?
- If I throw the eraser across the room to the volunteer, is a duty of care owed to the other students sitting under the flight path of the eraser?
- Is a duty of care owed to the volunteer? Do I have any defenses to a tort claim by the volunteer?
- Is it reasonable to use a soft object with no sharp edges or corners for the demonstration?

Example #3:

In relating property principles such as personalty, ownership rights or incorporeal hereditament, a student's wallet or cell phone is taken and used for the demonstration. One ought not to be surprised by how quickly a student grasps these concepts when his/her property is being held by the lecturer and class ends in five minutes.

In summation, the conclusions and recommendations of the *Student Demeanor in the Classroom* paper; the EDC workshop; and, experience in the BRE 206 module are generally in alignment.

B. The Surveys

Appendix 2 is a summary of the major results of the SFQ set out in tabular form. The results for each question item is segregated into groups: the Wednesday morning tutorial group, the Wednesday afternoon tutorial group, the Thursday afternoon tutorial group, and, the remainder of the students in this module under the heading *Friday lecture*.

The results for all the question items and for all groups were mixed. For example, the Thursday afternoon tutorial group gave rankings at or slightly below the faculty average while the Friday lecture group gave rankings all of which were below the faculty average. The Wednesday morning tutorial group gave ranking at or below the faculty average except for the following item: *Assessments require me to demonstrate knowledge, skills and understanding of the subject*. The Wednesday afternoon group gave rankings at or slightly below the faculty average on all items except for the following which exceeded the faculty average:

- *Teaching and learning activities helped me to achieve the subject learning outcomes*
- *Assessments required me to demonstrate knowledge, skills and understanding of the subject*
- *Teaching was clear and well organized*
- *Provided me with a valuable learning experience*
- *Overall, staff member is an effective teacher*

I have included, for comparative purposes, the feedback from BRE 544. This is an evening course for the Master of Science/Postgraduate Diploma in Construction Law and Dispute Resolution. BRE 544 is included because the syllabus is identical to that of BRE 206 except that, as a master's degree/postgraduate certificate course, there were additional topics to be taught and learned. Like BRE 206, BRE 544 ran during the first semester, on Wednesday evenings from 6:30 to 9:30 PM. Lectures commenced at 6:30 PM and students were kept in lecture until approximately 9:30 PM. Yet, the SFQ results from the BRE 544 students for all categories exceed the faculty average.

It is interesting to note that there does not appear to be any particular correlation with the tutorial groups' SFQ rankings and the examination results. The exceptions are the two categories: *provided me with a valuable learning experience* and *teaching and learning activities helped me to achieve the subject learning outcomes*. In these two categories, the higher the ranking, the better examination performance. As one can note from Appendix 2, the difference in the rankings for the second category is marginal.

Likewise, for the IQ, which is found in Appendix 3, there does not appear to be any particular correlation with the tutorial groups' IQ rankings and the examination results, with exceptions.

One exception is the response to the *course workload compared to other courses*: 75% of the Wednesday afternoon group found BRE-206 required *more time*; 60.9% of the Wednesday morning group found this course required *more time*; and, 40% of the Thursday afternoon group found BRE-206 to require *more time* than other courses. It might be possible to speculate that these survey responses indicate learning difficulty and/or the rigorousness of the module. Correlated with each group's examination results, there is evidence that those who recognized the need to devote more time to this module tested better than those who did not recognize this need.

The second exception is in the category *overall effectiveness of teacher in helping student to learn*. Eighty-seven percent of the Wednesday morning group rated this category as *good* or *satisfactory*. Its peers in the Wednesday afternoon group agreed with a combined rating of 90% for the answer choices of *good* or *satisfactory*. For the Thursday afternoon group, 83.5% found the teacher's effectiveness to be *satisfactory* or *good*. These results seem to suggest that there is a correlation between the students' opinion of the effectiveness of their lecturer and the students' examination performance.

There appears to be some anomalies with the Thursday afternoon group which should be noted. These anomalies pertain to the seemingly contradictory survey responses and examination performance. For example, for the statement that *teacher stimulated student to think independently*, the Thursday afternoon group nearly unanimously *agreed* or *strongly agreed* [55% and 35% respectively]. Likewise, in the category of *overall effectiveness in learning analytical reasoning*, 79% had a favourable reply [57.9% *good* and 21.1% *satisfactory*]. In the category of *overall effectiveness of course in teaching critical thinking*,

89.4% gave a rating of *good* or *excellent*. Yet, the examination results for this group belie these survey results.

The three tutorial groups which completed the IQ all indicated that tutorial sessions were more effective in achieving students' learning objectives. Whereas the highest rankings which found lectures to be *effective* were 43.5%, 50% and 35% for the Wednesday morning; Wednesday afternoon and Thursday afternoon groups respectively, tutorial sessions were rated at 47.3%, 70% and 45% respectively.

Another set of students from the Wednesday morning and Wednesday afternoon groups respectively found lectures to be less effective than tutorial sessions. These groups respectively rated lectures as *neutral* at 43.5% and 40%. Compared to the next largest group, 30.4% of the Wednesday morning group and 20% of the Wednesday afternoon group found tutorial sessions to be *very effective* in achieving students' learning objectives.

Thirty percent of the Thursday afternoon group found lectures to be *ineffective* in achieving students' learning objectives while 25% were *neutral*. Forty-five percent of this group found tutorial sessions *effective* in achieving students' learning objectives. The second-largest subset of the Thursday afternoon group [25%] rated tutorial sessions as *neutral*.

A final note of interest is derived from the statistics concerning the average hours per week spent preparing for lecture and the average hours per week spent preparing for tutorials.²¹ In the former category, the results ranged from 45% [of the Wednesday afternoon tutorial group]

²¹ The course syllabus indicates that 120 *Student Effort Hours* are required for BRE-206. Deducting lecture time and tutorial sessions from this figure results in a weekly average of 5.7 hours of studying.

to 65.2% [of the Wednesday morning tutorial group] spending one to three hours. Between 20% [of the Wednesday afternoon tutorial group] to 35% [of the Thursday afternoon group] spent four to six hours preparing for lecture.

The average number of hours per week preparing for tutorials ranged from 40% [of the Wednesday afternoon tutorial group] to 65% [of the Thursday afternoon tutorial group] spending one to three hours. Between 21.7% [Wednesday morning tutorial group] and 25% [each of the other two groups] spent four to six hours.

C. The Focus Groups

The consensus of the groups were that the scenarios and Socratic teaching method was successful in that this pedagogical methodology assisted the students' learning.²² Mentioned learning aspects included: improved student analytical abilities, broadening of the student's perspective, self-learning, stimulated to learn, clarified the legal concepts, and helpful to learning the concepts. The more enlightened students recognized: that different students may have different conclusions to the same scenario; that an emphasis was placed upon application rather than memorization; that another emphasis was placed upon self-learning; that a student can apply such an approach to other courses resulting in an improvement of critical thinking abilities; and, that it was useless to provide a large number of notes for students to memorize. Translated excerpts from each of the focus groups may be found in Appendix 4.

²² I would like to express my gratitude to Dr. KP Kwan and Mr. Kenneth Tam of EDC for their assistance in organizing and conducting the focus groups.

There were criticisms and recommendations as well. These tended to center on the need for notes and the need for a conclusion for each scenario. One queries whether these comments continue to reflect a surface approach to learning which these students utilized towards passing an examination. A conclusion without any logical reasoning is useless in terms of application of legal concepts and analysis. A proper scenario would have no clear-cut answer in order to force students to analyze the issues from different perspectives. Hence, there should be no single, clearly delineated conclusion. Another collateral criticism pertained to the level of difficulty of the recommended textbook.

One student commented on an inability to follow and fully understand the thought process involved in analyzing a scenario. This student found the Socratic process to be confusing and unclear. Most likely as a result, this student's performance in the module fared the worse amongst all those participating in the focus groups. Of note is the following exchanges between the Moderator and the student:

S: Stephen took a student's pen without the student's consent, and he asked whether it is an act of stealing. The owner of the pen did not say "no".²³

M: Did you find it [the above scenario] useful?

S: No really. It just confused me.

M: In which way?

²³ The purpose of this particular scenario was to introduce students to the difficulty of interpretation. The cited law stated: "It is theft for one person to take another person's property without permission." The issue is the interpretation of the word *permission*, whether permission may be given impliedly [by failing to say *no* or by failing to react] or be given explicitly [by stating *no* or otherwise indicating an objection to the taking of the pen]. Apparently, this student understood the point and the procedure but simply failed to make the connection to the process.

- S: The law concept he cited sounds so ambiguous. It depends on the owner's reaction.
- M: I see. You found this case difficult to follow. Did you find this approach useful in any way?
- S: Not so boring. We were able to study through some rather practical scenarios.
- M: Did you find such an approach helpful to understand the law concepts?
- S: Yes, I have a better idea of applying which law to such a scenario, but I did not know the outcome. I mean, I wasn't sure if the law was applicable to the case. He [the lecturer] often said whether a law is applicable to a case depends on which perspective you took.
- M: What did you think about this?
- S: Confused. ...

Nonetheless, this student acknowledges the usefulness of the scenario and Socratic tutorial sessions with comments such as:

- “[scenarios] helped us better understand the concepts”
- “[by working with scenarios] it helped us better understand the concepts ... By drawing a diagram to prepare for the tutorial you would have to study all the details. I wouldn't be able to come up with that much idea by reading the law textbook only.”

In summary, the twelve students participating in the focus groups had, with nearly unanimous agreement, found the scenarios and Socratic method to be effective as these allowed the students to establish a practical link between the theoretical and the application of theory. Some adjustments might be made to address the students' learning style that requires a conclusion to a scenario.

D. The Examination

The data were assembled in these categories followed by each category's *KR-20 Reliability*:²⁴

- all students in the module [0.7150]
- all students *sans* my three tutorial groups, *e.g.*, Friday lecture [0.6993]
- the Wednesday morning tutorial group of students [0.7947]
- the Wednesday afternoon tutorial group of students [0.6904]
- the Thursday afternoon tutorial group of students [0.6597]
- the BSc (Hons) Property Management students [0.6975]
- the BSc (Hons) Surveying students [0.6251]
- the Higher Diploma BTM [Engineering] students [0.7291]
- the Higher Diploma BTM [Surveying] students [0.7777]

After completing the item analysis exercise, there does not appear to be any obvious trends discernable in the examination answers, particularly for those questions where the students were to select the best of the five answer options. [The exceptions are discussed below.] Some scenario-based questions were easily answered by the students while some short, definition-related questions proved to be difficult for the same students. The converse is also

²⁴ KR-20 reliability refers to the Kuder-Richardson formula which describes the extent to which the test scores can be relied upon to provide an actual measurement of the examinee's abilities and knowledge. KR-20 is one coefficient that measures reliability. The coefficient ranges from 0.0 to 1.0. The closer the coefficient is to 0, the less of a relationship exists between the test scores and the examinees' true abilities. In other words, a score close to 0 means the test scores are random and do not accurately reflect the examinee's knowledge. The closer the coefficient is to 1, the more the score reflects the examinee's actual knowledge. GILBERT SAX, PRINCIPLES OF EDUCATIONAL MEASUREMENT 174 (1974).

true in that some scenario-based questions proved to be difficult for the students while some short, definition-based questions proved to be easy.

As an experiment, two short questions and their answer choices were repeated. In relation to the first set of duplicated questions and answers, the students were told during the exam of the redundancy and, if they were certain of their answer choice to the first question, to select the same answer choice for the repeated question. If the students were uncertain of their answer choice for the first question, they should select a different answer choice for the repeated question.

The first set of repeated questions concerned the definition of *vicarious liability*. There were, in general, a relatively high degree of confidence by the students overall in their selected answer choice. Except for one of my tutorial groups [which showed a five percentage point change in their selection of the correct answer], the other groups of students remained relatively constant [ranging from zero percentage point change to a change of 3 percentage points].

The second set of repeated questions concerned the application of the *Occupier's Liability Ordinance*. The students' answers showed a greater degree of uncertainty and lack of self-confidence. The total percentage of the whole class selecting the correct answer choice for both questions remained at 41% for both questions. However, within the different sub-groups, the change ranged as high as 10 percentage points in one group, from 43% selecting the correct answer choice for the first question to 53% selecting the correct answer choice for the repeated question.

Of the eighty questions on the examination, four were *true* or *false*. In the *Difficulty* criteria, the figures for the whole class for the respective questions are: 0.709, 0.762, 0.866 and 0.558. For each question's worse performing sub-group, the figures respectively are: 0.600, 0.660, 0.820 and 0.474. The conclusion is that amongst the *true/false* questions, there is one of relative ease, one of relative difficulty and two which are of middling difficulty. In relation to all the questions in the examination, the *true/false* questions were mostly ranging in the lower half of the difficulty scale, i.e., trending towards *easy*.

The table below represents a display of the students' ability to answer scenario-based questions and the short-answer questions. This exercise is intended to determine whether the students have learned problem-solving skills [via their analysis of, and answers to, the scenario-based questions] as compared to their ability to memorize definitions [as tested by most of the short-answer questions]. The table consists of two parts. The first part shows the collected data displayed in two categories. The first category is the results for all 175 students who sat the examination. The number who performed better on the scenario-based question are compared with those who performed better on the short-answer questions. The second category shows the same information but with my tutorial students' results removed from the calculation [the *Friday lecture* category].

The second part of the table shows various categories of a selection of the 175 students who sat the examination. The selection is based on those with the percentage point score of ten or greater between the two question categories. This ten percentage point basis was selected because it indicates more than two correct answers in either question category. For example, 16 correct answers out of 34 short-answer questions yields 47.06% while 17 correct answers out of 34 short-answer questions yields 50.00%. The difference between the yields would be

2.94 percentage points. A similar yield is found for the scenario-based questions: 16 correct answers out of 46 scenario-based questions yields 34.78% while 17 correct answers out of 46 scenario-based questions yields 36.96%. The difference between the yields here would be 2.18 percentage points. Therefore, the ten percentage point basis should provide a wider or broader range.

Group category:	Scenario-based	Short-answers	% Preference ²⁵
All 175 examinees	56	119	119/175 = 68.00%
Friday lecture	37	64	64/101 = 63.37%
>10.00% point difference			
All selected students	15	61	61/76 = 80.26%
Wed. AM tutorial	1	14	14/15 = 93.33%
Wed. PM tutorial	3	5	5/8 = 62.50%
Thurs. PM tutorial	1	12	12/13 = 92.30%
BSc (Hons) – Prop. Man.	3	5	5/8 = 62.50%
BSc (Hons) – Survey.	5	23	23/28 = 82.14%
HD – BTM (Eng.)	3	12	12/15 = 80.00%
HD – BTM (Survey.)	4	20	20/24 = 83.33%

Based on the figures in the above table, most of the students seem to continue to have a proclivity for the short-answer questions regardless of category. For example, scenario-based

²⁵ *Preference* is defined here to mean a student's ability to answer correctly one question type than another question type, *i.e.*, short-answers questions versus scenario-based questions.

problem solving through the application of legal principles was the preference of 56 individuals [32%] who sat the examination; 37 individuals [approximately 37%] in the *Friday lecture*; and, 15 individuals [approximately 20%] in the *All the selected students* category.

An interesting note is the students' selection of *I don't know* as the correct answer choice in the five questions which offered this option. I had intended this answer choice to be a hint to the students to select another answer choice. [After all, an examination is intended to assess what the students have learned, whether that examination is in an essay-type format or a multiple-choice format. Furthermore, as an answer of *I don't know* is not acceptable in my lectures or my tutorial sessions, students should know that there is no reason for such an answer to be acceptable in a multiple-choice examination.] The percentage of the whole class who selected *I don't know* ranged from 2% to 11%. Depending upon the question, the range for the groups varied from 0% to 26%.

Evidently, there is a cross-cultural misalignment between me and the students in relation to this answer choice. One former student has explained to me that in the Chinese Language and Culture examination of the Hong Kong A-Levels Examination, one of the answer choices is *cannot be determined*. This student's hypothesis is that his classmates might have mistranslated *I don't know* as *cannot be determined* or equated the two terms to be identical. This hypothesis might have some support from the comments from another student. This second student explained that he selected *I don't know* because some legal issues have no definitive answer and hence *I don't know* is an appropriate choice.

Section IV: Conclusion

Due to time constraints, some research was not conducted or conducted in as in-depth and detailed a manner as originally planned. The data obtained to date indicate that using scenarios and the Socratic Method as part of a practical, rather than theoretical, approach to teaching students of an average caliber [for Hong Kong] is successful according to the feedback received from the surveys and the focus groups. The item analysis of the examination results, however, seems to indicate that students continue to have difficulty with logic, analysis and reasoning skills. In other words, deep learning with adequate comprehension allowing application of that learnt knowledge have not been fully achieved. The students seem to have used this practical approach as a learning tool rather than as a learning method, i.e., to learn how to learn or to learn life-long problem-solving skills.

A unique opportunity for further investigation will arise later this year as a *re-take* course of approximately 40 hours over a two-week period in June is being planned for those approximately 50 students who failed the examination. It should prove interesting to repeat the data collection methodology at the conclusion of the Summer course to determine whether any change of perception of learning [or of teaching] has occurred possibly due to: repetition of the taught material; the vast difference in class size [50 versus 180]; teaching venue [medium-sized classroom versus a large, steeply-terraced lecture theatre]; time [9 AM Friday morning versus daily morning sessions]; and duration of lecture sessions [90 minutes versus four hours]. Another opportunity for data collection will occur in the next academic year when BRE 206 is again offered to a new first-year cohort.

Additionally, further research into this area is recommended, particularly as, at the time, this was my first semester at Poly U and the students' very first semester at university.

To conclude, further in-depth study is required. The findings that scenario-based teaching coupled with the use of the Socratic Method are generally effective remain preliminary. Another reason for further study is that the opportunity exists to re-evaluate a portion of the same cohort of students this Summer on the same course subject. Other recommendations, arising collaterally from this study, include:

- Administratively, scheduling of classes in terms of time of day and length should also be considered.
- A comment in one focus group raised the point that tutorial classes should be of a smaller size and for a longer period of time combined with a shorter lecture period. This preference seems to be substantiated by the survey results from my tutorial groups that achieving learning objectives were more effective in tutorial sessions rather than in lecture.
- Additionally, student qualifications [including English communication skills]; student skills [*e.g.*, note-taking]; and student attitudes towards education and studying [*e.g.*, student should realize that lectures are not periods of only *information input*²⁶; students should realize that they too are responsible for their learning] require improvement. Perhaps these skills and attitudes can be addressed in a mandatory orientation-training course for all first-year students.
- Finally, pedagogically, I will consider making changes to teaching method for this Summer's re-take, such as provision of outline/points/learning outcomes to students, increase the number of instances of novel stimulation; reiterate the connections/links in a summary for avoidance of student confusion; etc.

²⁶ BLIGH, *supra* note 19, at 11.

Don Quixote's quest continues.²⁷

²⁷ A reference to a fictional character's impossible dream of tilting at windmills. *See, e.g.,* <http://servercc.oakton.edu/~wittman/mills/quixote.htm>.

Appendix 1

A Profile of New Students 2007 - Executive Summary

Non-academic background of new students enrolled on full-time undergraduate degree and sub-degree programmes

1. Response Rate

- a. 3,799 students (1,703 male and 2,096 female students) responded to this Survey, representing a response rate of 85.9%
- b. 84.4% of the respondents were born in HKSAR, 14% in the Chinese mainland, 0.9% in Macau and the remaining 0.7% in other countries.

2. Family Background

- a. The level of educational attainment of the respondents' parents was not high, with 37.4% of the fathers and 40.4% of the mothers had either no formal schooling or only primary school education
- b. 21.4% came from families with monthly household income below \$10,000
- c. 42.1% reported monthly household income between \$10,000 and \$19,999
- d. Median household income was \$16,307, representing an increase of 8.5% compared to the figure surveyed in 2006 (\$15,027). The median household income of our surveyed students was 5.4% lower than the HK Population (2006 By-Census).

3. Living Conditions

- a. 42% of students were living in rental/sale flats of Housing Authority/Housing Society
- b. Over two-third (68.1%) of the respondents came from households with 4 to 5 persons
- c. 58.8% of students did not have a private room at home while 29.9% did not even have a desk for their own use
- d. Majority (68.6%) spent less than 1 hour in traveling from home to campus (single trip)

4. Financial Support for University Study and Living Expenses

- a. 45.2% expected their family to shoulder at least half of their study and living expenses, while 59.6% hoped they could obtain certain degree of financial support from the Government
- b. 85.6% of the respondents intended to take up part-time work during term time
- c. Out of those who expressed intention to take up part-time job, majority of students (68.9%) needed the part-time income to finance basic study and living expenses

5. University Education & Adaptation

- a. Around half (50.9%) of the respondents had chosen their present course of study 'out of an interest in the subject', 9.9% intended to 'obtain professional qualifications relevant to their desired career', 21.8% admitted that 'their choices were limited by examination results'
- b. Most respondents placed very strong expectation on 'acquiring professional qualifications relevant to one's career' (76%), followed by 'studying an interesting subject' (57.5%) and 'attaining language proficiency (50.9%)
- c. 41.9% of the respondents anticipated that they might have some or serious difficulties in 'financing their studies'
- d. 33% of the respondents anticipated that they might have some or serious difficulties in 'time management'

6. Self-assessment of Language Ability

- a. 30.6% of the respondents rated themselves 'strong' in Chinese Writing, 12.1% 'strong' in English Language and 9.8% 'strong' in Putonghua.
- b. 9.2% of the respondents indicated their Putonghua was 'very weak'.

	Very Weak	Weak	Average	Strong	Very Strong
Chinese Writing	1.5%	7.8%	57.2%	30.6%	3.0%
English Language	3.2%	22.3%	61.3%	12.1%	1.0%
Putonghua	9.2%	33.9%	45.6%	9.8%	1.5%

Appendix 1-A

The current intake of students for the Degree programme in Property Management displays the following data:²⁸

	Academic Year 2005/2006	Academic Year 2006/2007	Academic Year 2007/2008
<u>BSc (Hons) Property Management</u>			
Mean score of best 2 AL subjects: (excluding language subjects)	9.9	11.0	11.0
Mean A-Level score point total: (for all A-Level subjects taken)	9.1	10.2	10.0
% of non-JUPAS intake v. overall intake quota	25.8	9.7	22.6

²⁸ The figures in this section are calculated based upon the number of A-Level and AS-Level subjects a candidate has taken. Generally, a candidate will sit for two or three A-Level and/or two to four AS-Level subjects. Each A-Level subject is scored from “A” to “E”, where an “A” will be calculated as five points, a “B” will be calculated as four points and so on. For calculating AS-Level subjects, an “A” is calculated as three points, a “B” will be calculated as 2.4 points, a “C” is worth 1.8 points, a “D” is 1.2 points and an “E” is 0.6 point.

BSc (Hons) Surveying

Mean score of best 2 A-L subjects: 9.1 9.4 10.3
(excluding language subjects)

Mean A-Level score point total: 8.5 9.3 9.5
(for all A-Level subjects taken)

% of non-JUPAS intake v. overall
intake quota 7.7 4.6 3.1

The current year [Academic Year 2007/2008] student intake for the Higher Diploma Building Technology and Management (Engineering) reveal the following statistics:

INTAKE VIA JUPAS²⁹

²⁹ See http://www.jupas.edu.hk/jupas/content_aboutjupas.htm Joint University Programmes Admissions System (JUPAS) is a scheme and the main route of application designed to assist students with Hong Kong Advanced Level Examination (HKALE) results (past and / or current) to apply for admission to government-funded full-time or sandwich bachelor's degree programmes offered by the eight JUPAS participating-institutions [i.e., the eight universities in Hong Kong]; government-funded full-time associate degree programmes; government-funded full-time or sandwich higher diploma programmes offered by PolyU; and, non-government-funded full-time bachelor's degree programmes.

Applicants are requested to list their choices in order of preference. The JUPAS scheme is designed to assist a student in obtaining the best offer possible according to that student's interests as represented by the order of

No. of Band A admittees (% to JUPAS intake) (in Sept. 07):	14	(43.8%)
No. of Band B admittees (% to JUPAS intake) (in Sept. 07):	5	(15.6%)
No. of Band C admittees (% to JUPAS intake) (in Sept. 07):	7	(21.9%)
No. of Band D admittees (% to JUPAS intake) (in Sept. 07):	2	(6.3%)
No. of Band E admittees (% to JUPAS intake) (in Sept. 07):	4	(12.5%)

NO. OF PUBLIC EXAMINATION SUBJECTS PASSED

4 passed A-level subjects or equivalent:	6	(19%)
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his/her preferences and qualifications. Therefore, students prioritize their study programme choices according to their academic and career aspirations.

Within each Band, programme choices are made known to the institutions in numerical order without regard to the actual choice order.

BAND	PROGRAMME CHOICE NO.		
A	1	-	3
B	4	-	6
C	7	-	10
D	11	-	14
E	15	-	25

http://www.jupas.edu.hk/jupas/content_selprog.htm

For non-JUPAS students, *see, e.g.*, http://www18.polyu.edu.hk/e-prospectus/ft/misc.jsp?cms_menu_id=5692

For a description of Hong Kong secondary school bands, *see* David A. Watkins & John B. Biggs, *THE PARADOX OF THE CHINESE LEARNER AND BEYOND*, in W&B, *supra* note 12, at 14.

3.5 passed A-level subjects or equivalent:	9	(28%)
3 passed A-level subjects or equivalent:	14	(44%)
2.5 passed A-level subjects or equivalent:	3	(9%)

DISTRIBUTION OF A/AS-LEVEL SCORE POINT TOTAL INCLUDING LANGUAGES

Average A/AS-Level score point total of all subjects including languages	6.4
Average A/AS-Level score point total of all subjects excluding languages	4.7

AVERAGE LANGUAGE ATTAINMENTS AT A/AS-LEVEL

Chinese language	1.8
English language	0.9

The last set of academic demographics pertaining to the current year [Academic Year 2007/2008] student intake for the Higher Diploma Building Technology and Management (Surveying) disclose the following information:

INTAKE VIA JUPAS

No. of Band A admittees (% to JUPAS intake) (in Sept. 07):	18	(36.7%)
No. of Band B admittees (% to JUPAS intake) (in Sept. 07):	16	(32.7%)
No. of Band C admittees (% to JUPAS intake) (in Sept. 07):	8	(16.3%)
No. of Band D admittees (% to JUPAS intake) (in Sept. 07):	2	(4.1)
No. of Band E admittees (% to JUPAS intake) (in Sept. 07):	5	(10.2%)

NO. OF PUBLIC EXAMINATION SUBJECTS PASSED

4 passed A-Level subjects or equivalent:	7	(13%)
3.5 passed A-Level subjects or equivalent:	28	(54%)
3 passed A-Level subjects or equivalent:	7	(13%)
2.5 passed A-Level subjects or equivalent:	6	(12%)
2 passed A-Level subjects or equivalent:	1	(2%)

DISTRIBUTION OF A/AS-LEVEL SCORE POINT TOTAL INCLUDING LANGUAGES

Average A/AS-Level score point total of all subjects including languages	6.9
Average A/AS-Level score point total of all subjects excluding languages	5.1

AVERAGE LANGUAGE ATTAINMENTS AT A/AS-LEVEL

Chinese language	1.7
English language	1.3 ³⁰

³⁰ In Hong Kong, students may be instructed in either English or Cantonese until they reach tertiary education where the medium of instruction is English. This policy has caused some controversy. See, e.g., How-Kei Chan, *The effects of English medium in the primary school years on later achievement* in B&W; *supra* note 12; Belinda CYS Cheng, *Teaching history in the mother tongue*, in B&W, *supra* note 12; A. BRIMER, ET AL., THE EFFECTS OF THE MEDIUM OF INSTRUCTION ON THE ACHIEVEMENT OF FORM 2 STUDENTS IN HONG KONG SECONDARY SCHOOLS (1985); N. L. CHENG, ET AL., AT WHAT COST?: INSTRUCTION THROUGH THE ENGLISH MEDIUM IN HK SCHOOLS (1973); H. W. Marsh, et al., *Late Immersion and Language (English vs Chinese) in Hong Kong High Schools: Achievement Growth in Language and Non-language Subjects*, 79 HARV. EDUC.

REV., 302 (2000); P. C. S. Tung, *Why Changing the Medium of Instruction in Hong Kong Could be Difficult*, 10 JOURNAL OF MULTILINGUAL AND MULTICULTURAL DEVELOPMENT, 279 (1990); and the two following web sites: http://www.thestandard.com.hk/news_detail.asp?pp_cat=11&art_id=61044&sid=17389971&con_type=1&d_str=20080201&sear_year=2008 (Last visited 1 February 2008.); and http://www.thestandard.com.hk/news_detail.asp?we_cat=16&art_id=63415&sid=18199466&con_type=1&d_str=&fc=4 (Last visited 25 March 2008.)

Furthermore,

Hensen and Jensen (1994) have shown that making [explaining] links is a particular difficulty for second-language students. Those whose language skills were proficient scored equally well on questions that tested a “global” understanding of a topic as on questions on specific details. Those who were less proficient did less well on both, but much worse on global questions. On specific questions, they relied upon verbatim memory; global questions required them to extract and relate clauses from different sentences and to formulate answers in their own words.

DONALD A. BLIGH, WHAT’S THE USE OF LECTURES? 105 (2000 US edition). This in part reinforces the decision to use a multiple-choice examination format.

Student Feedback Questionnaire – Appendix 2

BRE 544	Wed AM	Wed PM	Thurs PM	Fri Lecture
27 students	22 students	20 students	24 students	44 students
3 of 32 failed	8 of 29 failed	4 of 20 failed	8 of 25 failed	

About the Subject

Clear understanding of what I am expected to learn	4.00	3.50	3.65	3.54	2.95
Teaching and learning activities helped me to achieve the subject learning outcomes	4.00	3.70	3.80	3.67	3.14
Assessments require me to demonstrate knowledge, skills and understanding of the subject	4.20	4.00	3.85	3.63	3.43
Able to understand the criteria for grading	3.80	3.20	3.50	3.25	3.23

About the Staff Member

Teaching was clear and well organized	4.30	3.60	4.11	3.75	3.51
Timely and useful feedback	4.20	3.50	3.47	3.58	3.51
Sufficient opportunity to get help after class	3.90	3.70	3.63	3.63	3.47
Stimulated me to learn more about the subject material	4.10	3.60	3.42	3.46	3.30

Overall View about the Teaching of the Staff Member (against Faculty norm)

Provided me with a valuable learning experience	4.10	3.70	3.89	3.63	3.42
Overall, staff member is an effective teacher	4.30	3.70	4.05	3.70	3.42

1 = Strongly disagree

2 = Disagree

3 = No strong view

4 = Agree

5= Strongly agree

Informal Questionnaire – Appendix 3

	Wed AM	Wed PM	Thurs PM
	23 Students 27.58% Failure Rate	20 Students 20% Failure Rate	24 students 32% Failure Rate
How much of the topic was understood:	59.1% “most” 22.7% “some”	65% “some” 35% “most”	45% “some” 25% “most”
Has the course met all its syllabus/objectives:	56.5% “most” 26.1% “some”	85% “most” 10% “some”	55% “most” 25% “all”
Student has learnt to think critically as result of this course:	60% agreed 26.1% “neutral”	45% agreed 35% “neutral”	75% agreed 15% “neutral”
Level of difficulty was appropriate:	47.8% “neutral” 34.8% agreed	42.1% “neutral” 42.1% agreed	40% “neutral” 25% disagreed
Workload for course was appropriate:	47.8 % agreed 30.4% “neutral”	85% agreed 15% “neutral”	50% “neutral” 25% agreed
Course workload compared to other courses:	60.9% “more time” 30.4% “same amount of time”	75% “more time” 15% “much more time”	40% “more time” 35% “same amount of time”
Effectiveness of lectures in achieving students’ learning objectives:	43.5% “effective” 43.5% “neutral”	50% “effective” 40% “neutral”	35% “effective” 30% ineffective 25% “neutral”
Effectiveness of tutorial sessions in achieving students’ learning objectives:	47.3% “effective” 30.4% “very effective”	70% “effective” 20% “very effective”	45% “effective” 25% “neutral”
Overall effectiveness of course in teaching critical thinking:	52.2% “good” 26.1% “satisfactory” 17.4% “excellent”	55% “satisfactory” 45% “good”	78.9% “good” 10.5% “excellent” 17.4% “fair”

Overall effectiveness in learning analytical reasoning:	39.1% "satisfactory" 34.8% "good" 21.7% "excellent"	55% "good" 45% "satisfactory"	57.9% "good" 21.1% "satisfactory"
Average hours per week preparing for lecture:	65.2% 1-3 hours 21.7% 4-6 hours	45% 1-3 hours 20% 4-6 hours 20% 7-9 hours	60% 1-3 hours 35% 4-6 hours
Average hours per week preparing for tutorial sessions:	56.5% 1-3 hours 21.7% 4-6 hours	40% 1-3 hours 25% 4-6 hours 20% 7-9 hours	65% 1-3 hours 25% 4-6 hours
How much of life-time [problem-solving] skills did student learn:	59.1% "more than expected" 27.3% "about expected"	62.5% "about as expected" 25% "more than expected"	60% "about expected" 20% "more than expected"
Teacher stimulated student to think independently:	65.2% agreed 17.4% strongly agreed	45% agreed 40% strongly agreed	55% agreed 35% strongly agreed
Overall effectiveness of teacher in helping student to learn:	43.5% "good" 43.5% "satisfactory"	65% "good" 25% "satisfactory"	40% "satisfactory" 43.5% "good"
How much of the topic was understood:	59.2% "most"	5% "some"	45% "some"

Excerpts from Focus Group Transcripts – Appendix 4

Focus Group 1

...

S1: I think it [the scenarios] works for hard-working students. ... Personally, I think this approach is useful. It did not work as efficiently as it should have been, however, because the students were passive in learning.

...

M: Do you think it's a kind of communication or discussion?

S1: Discussion.

M: Through discussions, what were the most important things you have learnt?

S2: Self-learning. I do not like tutors who just throw the answers to the students...in particular for BRE206. This is because we need to deal with many kinds of cases. It is possible that different students have very different opinions to the same scenario.

...

S3: We could apply the concepts we have learnt to the scenarios to test if we understood or were able to apply the concepts. It was more about application than memorization. It was interactive and flexible.

M: So you could learn how to apply the concepts to real cases. What do you think?

S2: It's helpful ...

M: In which way?

S2: Application. In lectures we just had the written concepts and did not know how to use it. From the scenario-based discussion we saw what we missed.

...

M: Any more suggestions?

S3: Tutors and lecturers of other courses would upload the course material to the WebCT, but the tutor of BRE206 did not. ... We asked the tutor why he didn't upload the notes. He said he wanted us to read the reference book and prepare our own set of notes. The reference book was difficult to read. So it's hard to prepare notes by ourselves.

M: What's your opinion about this arrangement?

S3: This approach is good and does urge the students to work harder. But the reference book is a problem.

Focus Group 2

...

S2: The examination is the core assessment.

S1: Passive students might find it difficult. In fact, however, the examination paper was not very difficult.

M: But did you find the scenario helpful to your learning of the subject?

S1/3: Yes.

S1: To study law we need to learn its application. It is useless to distribute a large pile of handouts to the students and ask them to memorize all points.

Focus Group 3

...

S3: With scenarios it was easier for us to study and discuss the law concepts we had been covered in lectures.

S1: Yes, by using some examples, i.e. scenarios, we had better understanding and better memory of the concepts we had learnt. We also have scenario type questions in the examination. So using scenario is very helpful.

...

M: In which ways? You said it was complex and the characters were named funny, and the discussion had been carried for a few tutorials.

S1: By studying the complex relationships between the parties in details, we became clearer to the relevant concepts.

S2: We just had a sense of accomplishment as we revealed the issues one by one. It was just interesting. And the parties were named very funny.

S3: The scenario was quite complex and thus the students became more interested in taking part in the discussion. It just stimulated our critical thinking of the law problems.

S1: We used a mind map to write down the parties and discuss. We looked at the scenario point by point. It was very systematic.

...

S3: As the class discussion was based on a scenario we became more focus. Such an approach helped us to study the law concepts in a more practical manner. We thus had a better and more concrete idea about how to start analyzing or what we should be focus on a case. Many law concepts were involved to the scenarios. So we were able to study more and tried to participate more in class.

...

M: What were the most important things you have learnt from working with the scenarios?

S1: Critical thinking. Just to learn the concepts is not enough. You may not know how to apply the law concepts to real cases. But the scenario-based approach helps us map the relevant concepts to the cases.

S3: The scenarios sounded like real cases. We are supposed to learn how to apply the law concepts to our lives. So the scenarios just brought them together. We were able to learn how to analyze a case with connection to a few law concepts

...

M: So one of you mentioned about critical thinking. It is a little abstract to saying that the tutorial taught you how to think. Could you describe more about that?

S1: By using scenarios we had better idea of the law concepts and the connection between the concepts and some reality issues. ... We were not aware the *issues* happened around us before we took the course. Now we look at the same situation from different perspectives.

S3: People generally thought Law is boring and difficult to study, especially without an introduction of how to study properly. But by using scenarios we had a good reference point to start. It improved our analytical power.

M: Could you describe more about the improvement of analytical power?

S2: By using a flowchart to analyses a scenario you may also try to apply such an approach to other courses and gradual improvement of the critical thinking ability would be achieved. I think it's a very practical approach.

M: Does flowchart and the mind map you have mentioned is the same thing?

S2: Roughly.

S1: They help you to analyses the problem step by step.

S2: Flowchart is more like linear thinking. Later, when the cases were more complex, we used mind map.

S3: In many cases, it is not concrete to say whether something is right or wrong. Not any party is absolutely right in a case. You have to analysis the case thoroughly from many different angles.

M: So you actually have said these techniques are helpful to learning law concepts, right?

S2: Yes.

...

M: At first, you might not actively participate in class. But later you were more willing to take part in the discussion. What made you have such a change?

S1: By using scenarios we were able to do more discussion in class and through discussion we learnt the cases from more different angles. It's much better than just sitting down and learning the concepts.

S3: I think the scenarios provided an effective channel for us to start up a discussion. They showed us the right direction of learning. Being able to carry out the discussion of all scenarios, the students would have a sense of satisfaction and were more willing to participate.

...

S3: I think the approach in lectures is fine.

M: Can you say something more about it?

S3: He would ask a few students to do a demo or illustrate the concepts on the board, rather than just standing there and reading the concepts out. The lectures were quite interactive.

Focus Group 4

...

M: What did you find most helpful to your studies?

S1: It's pretty solid, I think. In the lectures we were only introduced to those law concepts. But through the scenarios we were able to learn how to apply the concepts to some cases.

S2: Some tutors would easily let go if the students did not try their best to find the answer. But Stephen would just force us to think and discuss.

S1: Yes, and he always forced us to answer the questions, instead of giving the answers or just let it be. And he speaks very good English. I like his accent.

...

S1: To teach by using scenarios is a very practical approach, instead of talking about the theories in [tutorial] class again.

...

M: Can you be more specific?

S1: Force us to analysis.

S2: And it's a more thorough and comprehensive way of studies to the law concepts we learnt.

S1: The tutor didn't take us as a sponge, which means we were only to listen but no critical thinking. And through discussions, he would see our weakness and further elaborate the parts that the students didn't understand well.

File name: Shoot the Gits – edited[1] – DS

Margaret Liddle, *Student Attitudes Toward Problem-Based Learning in Law*, 11 JOURNAL ON EXCELLENCE IN COLLEGE TEACHING 163-190 (2000) [hereinafter *Student Attitudes*].

¹ <http://www.polyu.edu.hk/hro/job.htm> (Lasted visited 23 January 2008).