A Case Study of Teaching and Learning in General Education at a Community College in Hong Kong

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ABSTRACT

This qualitative case study investigated the teaching practices I adopted in a general education course at a Hong Kong community college during the 2013/14 academic year. I took on the active role of participant observer to examine how a combination of Multiple Intelligences (MI) theory and Integrated Thematic Instruction (ITI) supported the goals of general education. Interview protocol with open-ended questions was the instrument to collect the students' voices about their learning experiences in an MI-inspired general education course. Three research questions were posed. First, how does a course instructor design and teach a general education course at a community college in Hong Kong? Second, how do community college students experience learning in such a course? Third, how do community college students evaluate their learning outcomes in such a course? The interview data clearly revealed that the students' learning experiences in the MI-inspired general education course included making connections to lived experience; applying the course content to real-life situations; learning to synthesise information, find relationships, think critically and solve problems; and creating knowledge through group projects. The students' learning experiences corresponded to four dimensions of MI theory in terms of instructional design. These dimensions included designing broad-based knowledge and reality-based curriculum, using multimedia sources as teaching materials, developing cognitive skills in students and empowering students to learn. The interview data reflecting the students' learning experiences as they relate to pedagogical MI dimensions were examined through my observations of students' interactions in practice in addition to the students' written self-reflections on group projects. The results of a college-wide teaching evaluation survey also indicated that the students gave higher ratings to their learning experiences in the MI-inspired general education course. As such, the incorporation of MI theory into ITI was a pedagogical initiative to support the goals of general education and strengthen learning opportunities for community college students with multiple intelligences. In addition, I explored the research implications of MI theory. The findings of this study provide community college policymakers, faculties and administrators with practical advice on curriculum development and the instructional design of general education at community colleges in the Hong Kong context.

中文摘要

是項質性個案學術研究乃探討一所香港社區學院通識教育課程的教學實踐。此研究個案涵蓋了研究者在有關的「多元智能」(Multiple Intelligences)啟迪下的通識教育的教學設計與教學策略。 研究者扮演成積極參予觀察者，來檢視「多元智能」和「主題教學法」(Integrated Thematic Instruction)兩者之間的組合如何實踐和通識教育有關的各樣教育目標。 此研究個案於2013至2014學年期間，在有關的一所香港社區學院內進行。訪問形式是採用開放式問題，務使收集學生在這「多元智能」通識教育科目的學習體驗。 此研究針對以下三個問題：一) 課程導師如何在該香港社區學院設計及教授通識教育課程？二) 該社區學院的學生在堂上有何學習經驗？三) 學生如何衡量該課程的學習成果？ 訪問數據資料顯示，學生在「多元智能」的學習體驗中，包括：緊扣日常生活、學以致用、融會貫通、學會批判思考、解決疑難和在小組工作中均學有所用。 明顯地，學生們的學習經驗對應了在「多元智能」理論的教學設計中的四個層面，即廣泛知識和建基現實的課程、多媒體教材、培養認知技巧和促使學生學習。 學院的教學評分結果顯示，學生能於「多元智能」啟迪下的通識教育學習中的得益，評分較前高。研究發現「多元智能」和「主題教學支援」的組合能清晰帶出通識教育的教學目標。此學術研究可為有關政策決策者和大學學系的策劃人提供實用兼可行的參照。 此外，此研究也同時為日後學者於有關「多元智能」教育理論和實踐在社區學院的研究和探究，提供了寶貴的資料和啟示。

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he will rejoice over you with singing" (Zephaniah 3:17).

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I love my family. This thesis is dedicated to them.

Lucy S.P.
CUHK, Spring 2015

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CHAPTER ONE: INTRODUCTION

1.1 Purpose of the study

The purpose of this study was to investigate general education teaching practices at a community college in Hong Kong. The case of interest was an associate degree general education course that I taught at the college. Three research questions guided this study. First, how does a course instructor design and teach a general education course at a community college in Hong Kong? Second, how do the students experience learning in such a course? Third, how do community college students evaluate their learning outcomes in such a course? At the societal level, Hong Kong has experienced unprecedented education reforms since 1999. The new academic structure, which comprises a three-year school curriculum at the senior secondary level and a four-year undergraduate programme at the university level, was fully implemented in 2012. At the organisational level, community colleges have had to change their programme structures and develop new general education courses to cope with the new education reforms. At the individual level, community college course instructors have had to design new curriculum and consider which kinds of pedagogy enhance students' learning in general education. Since community college students may have had a history of difficulty in the linguistic and logical spheres, it may be especially important to open up their learning to other spheres. Under these circumstances, Howard Gardner's Multiple Intelligences (MI) theory (Gardner, 1993, 2000, 2006a, 2011), which advocates pluralistic approaches to teaching and identifies multiple intelligences among individual students, may provide general education course instructors with a lens through which to view students differently and techniques to teach general education. According to Gardner (2004), "MI theory can serve as a 'releaser'

(helping adult learner to become assertive, more self-confident) and as a 'greaser' (helping them enter smoothly into studies that might have seemed forbidding before)" (p. viii). There are a number of interpretative research studies applying MI theory to adult learning in language and general development courses at community colleges in the United States (Berkemeier, 2002; Chen, Moran, & Gardner, 2009; Griggs, Barney, Brown-Sederberg, Collins, Keith & Iannacci, 2009; Viens & Kallenbach, 2001, 2004; Wallace, 2010). These studies inspired me to explore the application of MI theory to my instructional design and teaching practices in a general education course that I taught at a community college. According to the Education Bureau, community college graduates comprise a sizeable portion of the labour force population (Education Bureau [EDB], 2014). As such, it is important to prepare community college students to reach their full development and assume their civic responsibilities as participants in society by taking general education courses. This case study was intended to provide a knowledge base of teaching practices and student learning in general education at the community college level and to offer community college policymakers, faculties and administrators practical advice on curriculum development and the instructional design of general education at Hong Kong community colleges.

1.2 Research context

The most important part of a new senior secondary curriculum is to include Liberal Studies that integrates knowledge from other subjects, focuses on contemporary issues and emphasises student-centred pedagogies. Under the new academic structure, Chinese Language, English Language, Mathematics and Liberal Studies are considered mandatory minimum requirements for university entrance. All eight of publicly-funded universities have undergone curriculum reforms to cope

with this system-wide education reform. The curriculum reforms have focused on adding credit-bearing general education courses to the core curriculum across undergraduate programmes. Likewise, community colleges changed their programme structures and developed a new general education curriculum when the Education Bureau announced the revised common descriptors for both associate degree and higher diploma programmes under the new academic structure. According to the new regulation, "at least 60% of [the] curriculum consists of generic contents including language, information technology and general education" (EDB, 2011, p. 3).

I joined a community college in Hong Kong in 2012 and was assigned to teach a new general education course under the administration of the Division of Social Sciences. The community college was established in 2000. The number of students enrolled in the associate degree programme in the 2013/14 academic year totalled around 3,000, and the number of graduates in the 2012/13 academic year totalled about 1,000. Around 60% of the graduates enrolled in local degree programmes (including publicly-funded and self-financing programmes) while 20% of graduates worked full time or part time (EDB, 2014). The associate degree programme is a 62-unit programme that normally requires two years of full-time study. Students are required to complete 38 units of general education courses offered by five divisions, including Applied Sciences, Arts and Language, Business, Communication and Social Sciences, and 24 units of discipline-specific courses. One of the admission requirements, applicants should obtain Level 2 in five of the subjects included in the Hong Kong Diploma of Secondary Education Examination (including Chinese Language and English Language). Level 5** is the highest and Level 1 is the lowest. From my own teaching experience, developing and teaching new general education curriculum is a challenging task for community college

teachers. First, a general education course must be designed in accordance with the philosophy of the general education programme of the parent university. In this case study, the major university-wide learning outcomes included effective communication skills, critical thinking and analytical reasoning skills, the ability to be creative, the ability to solve complex problems and make ethical decisions and the ability to apply knowledge in real-life situations. On this occasion, the general education curriculum focused on the process of developing various levels of cognitive ability in students. According to Reigeluth (1999),

> cognitive education is composed of the set of instructional methods that assist students in learning knowledge to be recalled or recognized, as well as developing students' understandings and intellectual abilities and skills. Since metacognition (the ability to think about one's own thinking) is an intellectual skill, we consider it to fall in the cognitive domain. (p. 52)

Reigeluth (1999) affirms that different taxonomies are widely used to categorise educational objectives and activities in the cognitive domain, and that much of the focus of "instructional theories seeks to push us beyond the lower levels of objectives to the higher levels, commonly referred to as higher order thinking skills" (p. 52). Four instructional taxonomies for cognitive abilities are identified: memorising information, understanding relationships, applying skills and applying generic skills (Reigeluth, 1999). The intended learning outcomes of my course as set out by the college were similar to Reigeluth's taxonomies. The three intended learning outcomes were basically related to the three levels of cognitive ability: 1). describe current socio-cultural issues in neighbouring countries (memorise information), 2). analyse the structure and roles of the social and cultural institutions in Asian societies

(understand relationships) and 3). explain and apply sociological concepts and principles when discussing particular social issues (apply generic skills). As Yeung, Lam, Leung and Lo (2012) remark, this curriculum concept "seeks to develop a repertoire of cognitive skills in students … these skills are applicable to a wide range of intellectual problems" (p. 39). Given the time constraints of an academic semester, how does a course instructor design instruction methods that focus on helping students build cognitive skills? Furthermore, how does the instructor engage community college students with diverse abilities to learn these skills through general education courses? After gaining a year of teaching experience, I decided to undertake a case study to examine teaching practices and student learning in a general education course while acting as a participant observer. The case study was to "understand the meaning of an experience in [a] natural setting. The analysis strives for depth of understanding" (Merriam, 1988, p. 16). In this sense, a qualitative case study is an appropriate choice to contribute to the current knowledge of teaching practices and student learning in general education at community colleges in the Hong Kong context. There is no single pedagogic model that fits all of the general education teaching practices. MI theory may provide teachers with a lens through which to view students differently and understand approaches to teaching and learning in the general education context. As Veins and Kallenbach (2004) suggest, there is no one way to apply MI theory to instruction; indeed, it depends on the teaching context and goals. Gardner (2009a) admits that "MI theory does not in and of itself make any firm educational recommendations" (p. 105). However, Gardner (2009a) identifies the following two educational implications of MI theory:

> [1] Pay attention to individual differences. And to the extent that you can individualise education, do so. [2] Decide on what is really important in your discipline or field and teach it, convey it, in several different ways. By that approach, you can reach more children. Moreover, you demonstrate what it means to have a keen understanding can present the topic in several ways. If you can only present your topic in one way, your grasp of it is likely to be tenuous. (p. 98)

Gardner (2011) reiterates that the two educational implications – individuation and pluralisation – do not depend explicitly on MI theory and that the same recommendations for approaches can indeed be found in other scholarly works. However, MI theory provides teachers with some empirical evidence of multiple teaching approaches and the vocabulary necessary to articulate their beliefs about their teaching practices. The list of eight intelligences helps teachers to apply a well-defined vision of their students' potential to organise their teaching practices (Viens & Kallenbach, 2004, p. 16). Furthermore, Gardner (2006a) accentuates that he has no intention to create a set of criteria that determine correlations between test scores. He stresses that assessment should occur within the environment and coins the term 'ecological validity' to describe assessors' feedback related to students' strengths and weaknesses as they work on projects, problems or class activities (p. 181). According to Reigeluth (1999), the major contributions of MI theory in instruction are the resultant focus on students' understanding of a topic as an important kind of learning outcome and the use of different instructional methods to help students deepen their understanding of a topic in a way that capitalises on their

different intelligences. As such, teaching strategies and plans should be carefully designed to help students think critically about course materials and master the core concepts they must learn. Determining how to translate MI theory to an instructor's own teaching setting is a crucial step in the course design process.

In practice, I used an MI-inspired teaching strategies suggested by Armstrong (2009) as a reference. Armstrong (2009) describes an important way to create lesson plans or curriculum units using MI theory as an organising framework: "ask key MI questions relating to eight multiple intelligences with a clear objective of the course in the centre of the plan" (p. 65). In view of individual differences between students, instructors are advised to use a broad range of teaching strategies. Armstrong (2009) suggests 40 teaching strategies, five for each of the eight intelligences, which are designed to be general so that they may be applied at any grade level. Like other MI researchers, Armstrong (2009) emphasises that these are only samples of teaching strategies and encourages instructors to develop their own unique adaptations of existing strategies. Wallace (2010) collaborates with Spanish-language instructors to determine community college students' perceptions of foreign-language acquisition. The author indicates that incorporating MI theory into traditional language teaching methods may change "the perceptions of learning second language by adult students who only learn well if they have a real-life reason for learning, do not want recognition of their past accomplishments [and] need a conducive atmosphere to succeed" (p. 112). Wallace (2010) suggests the use of several techniques in the data collection and analysis processes, including "observations of the foreign language class, the three-interview series and a follow-up interview" (p. 113). Other researchers have crosschecked students' perceptions of learning MI-inspired lessons with documents such as teacher journals, programme evaluations and final evaluations to claim the validity and authenticity of

their findings (Berkemeier, 2002; Shearer, 2009; Viens & Kallenbach, 2004). In this study, I incorporated MI theory into Integrated Thematic Instruction (Kovalik, 1994) to help students learn a general education course at a community college.

1.3 Research questions

A key feature of this study was its investigation of the teaching practices involved in a general education course at the community college level. The students' voices and views about an MI-inspired general education course were crucial to my judgement of my own teaching practices. The following research questions were posed.

1). How does a course instructor design and teach a general education course at a community college in Hong Kong?

2). How do community college students experience learning in such a course?

3). How do community college students evaluate their learning outcomes in such a course?

1.4 Significance of the study

Globalisation has created a process by which the global economy now demands post-secondary basic skills for all workers. Community colleges, which are recognised as an American facet, have become "the institutions of choice for countries seeking to create access for its people, a workforce for a globally dependent society, and a need to build a civil community" (Valeau, 2009, p. 616). In 2000, the Hong Kong Chief Executive launched a policy to raise the participation rate in post-secondary education from 33% to 60% within 10 years in view of the new economic developments being made in the era of globalisation. In 2005, the overall post-secondary participation rate in Hong Kong higher education reached

66%. The target was achieved and the rate exceeded the original schedule and scale. In 2009, community college graduates constituted 43% of the total full-time accredited self-financing post-secondary graduates, representing a sizeable portion of the labour force population (EDB, 2014). Although perceived local economic targets had driven the educational goals in the post-secondary sector, the government noted that "higher education should produce not just knowledge-rich students but also thoughtful, self-reliant, adaptable and contributing citizens in the era of globalisation" (University Grants Committee [UGC], 2010, pp. 15-16). It is important to prepare community college students to achieve their full development and assume their civic responsibilities as participants in society. As such, the findings of this study should contribute to the knowledge of the general education teaching practices and student learning at community colleges. In addition, I hope that community college policymakers, administrators and faculties will benefit from this knowledge when implementing general education courses in the Hong Kong context.

1.5 Organisation of the thesis

This thesis has six chapters. Chapter One outlines the purpose of the case study and research questions. Chapter Two elucidates the educational implications of MI theory and identifies the common elements between MI theory and general education in terms of educational philosophy, teaching practices and assessment methods in the Hong Kong context. Chapter Three illuminates the methodological considerations of the research and explains why a case study was the best-suited research method. Chapter Four delineates the contextual background of the case study and explores the instructional design and implementation of an MI-inspired general education course at a Hong Kong community college. Chapter Five reveals

the community college students' experiences with the course. The results of the teaching evaluations show that the students gave higher ratings to their learning outcomes in the MI-inspired general education course. In addition, the interview data illustrate that the students' perceptions of their learning experiences in such a course corresponded to four dimensions of MI theory. Chapter Six summarises the four dimensions of MI theory in instructional design and discusses their practical implications. Furthermore, I explore the research implications of MI theory and provide community college policy-makers, faculties and administrators with suggestions for applying MI theory to general education in the Hong Kong context.

CHAPTER TWO: FRAMEWORK AND LITERATURE REVIEW

This chapter discusses the educational implications of MI theory. It then examines previous studies of the application of MI theory to teaching practices and student learning at community colleges in the United States. Finally, it discusses the common elements between an MI-informed teaching approach and general education at the community college level.

2.1 Background information on Multiple Intelligences (MI) theory

Howard Gardner (1993) reviews his book *Frames of Mind* for the tenth-anniversary edition, he states his desire to "broaden conceptions of intelligence to include not only the results of paper-and-pencil tests but also knowledge of the human brain and sensitivity to the diversity of human cultures" (p. ix). Gardner (2011) posits that "[a]n intelligence is a biopsychological potential to process information in certain kinds of ways, in order to solve problems or create products that are valued in one or more cultural settings" (p. 3). He believes that standard tests for measuring intelligence should focus not only on linguistic and logical-mathematical skills. According to Gardner's (1993) definition and eight criteria, there are six additional intelligences including "musical intelligence; spatial intelligence; bodily-kinesthetic intelligence; interpersonal intelligence; intrapersonal intelligence; and naturalist intelligence" (p. xi). He observes that there is a wide array of human potential and talents that significantly contribute to our intellectual and cultural life. MI theory suggests a "qualitative expression, a description, of an individual's collection of intelligences rather than a quantitative expression of a general ability" (Viens & Kallenbach, 2004, p. 3). The key features of MI theory are discussed in the next section.

MI theory was first introduced 30 years ago. Gardner views his work on the subject as a contribution to his own discipline of developmental psychology and has not expected it to exert considerable influence in the education field, as he has written nothing about education as it relates to MI theory (Gardner, 1993, 2006a, 2009a, 2009b, 2011). Gardner (2009b) was even surprised to see how quickly this "inside psychology" spread to education in America and many other parts of the world (p. 15) and he observes that MI theory has become a kind of Rorschach (inkblot) test of reader-educators who are trying to decipher it according to their ideas:

> Some saw the theory as about curriculum, others about pedagogy or assessment. Some thought that the theory was particularly relevant for gifted children, others for those with learning disabilities. … [R]eaders used the book to support ideas that they had already favoured for other reasons. (p. 6)

Gardner (2011) explains that his original book made very few educational suggestions, and as such that educators may feel free to use the theory to suggest approaches to curriculum, pedagogies, assessments, learning differences, computer usage and places for the arts. He makes it clear that MI theory is principally written for psychologists and aims to offer a broader definition of intelligence than that measured by standard tests focusing on logical and linguistic skills. He began to think about educational issues when he started to communicate directly with educators who had an interest in the theory by the mid-1980s.

2.2 Eight intelligences

According to Gardner (1993), "the possession of an intelligence is most accurately thought of as a potential: an individual in possession of an intelligence can be said to have no circumstance that prevents him from using that intelligence" (p. 68). These intelligences are most readily observed when used in a programme of action. Eight intelligences have been identified thus far. Gardner (1993) explains that "[i]ntelligences can be combined in different ways and each is also relatively independent of the others" (p. 68). Gardner (2009b) emphasises that "people are not born with a given amount of intelligence, which serves as some kind of limit" (p. 7). However, MI theory supports the idea that the eight intelligences can be learnt and developed. Table 2.1 features a brief description of Gardner's eight intelligences and how each intelligence is evident in the real world.

Table 2.1 Eight intelligences according to Gardner's MI theory

Domain	Explanation
Linguistic Intelligence	Reflects the capacity to use language to express what is on one's mind and to understand other people. Poets, writers, journalists and newscasters exhibit high degrees of this intelligence.
Logical-Mathematical Intelligence	People with highly developed logical-mathematical intelligence understand the underlying principles of a kind of causal system. They are able to calculate, quantify and consider propositions and hypotheses. Scientists, accountants, engineers and computer programmers demonstrate this intelligence.
Musical Intelligence	Reflects the capacity to think in music, hear

	patterns and recognise and remember pitch, melody, rhythm and tone. Composers, conductors, musicians and sensitive listeners are among those who demonstrate this intelligence.
Spatial Intelligence	Refers to the ability to think three-dimensionally the way sailors, pilots, painters, architects and sculptors do. This kind of intelligence enables one to perceive external and internal imagery; recreate, transform or modify images; navigate oneself and objects through space; and produce or decode graphic information.
Bodily-Kinesthetic Intelligence	Reflects the capacity to use one's whole body or parts of one's body, such as the hands, fingers and arms, to solve a problem, make something or put on a production. This kind of intelligence is evident in athletes, dancers, surgeons and craftspeople.
Interpersonal Intelligence	Reflects the capacity to understand and interact effectively with others. This kind of intelligence is evident in teachers, social workers, clinicians and politicians. Those who deal with other people must be skilled in the interpersonal sphere.
Intrapersonal Intelligence	Refers to having an understanding of oneself and the capacity to use such knowledge in planning and directing one's life. Some individuals with strong intrapersonal intelligence specialise as psychologists, philosophers and therapists.
Naturalist Intelligence	Consists of observing patterns in nature and identifying and classifying objects of the

	natural world. Skilled naturalists include farmers, botanists, hunters and landscapers.

Adapted from Gardner and Checkley (1997), p. 8.

Although Gardner (2011) identifies existential intelligence in the new edition of *Frames of Mind*, it seems that the idea has yet to be developed. In his interview with Tom Hoerr (Gardner, 2014), he mentions that:

> [i]n putting forth the eight intelligences, I strictly applied the 8 criteria outlined in Chapter 4 of my 1983 book *Frames of Mind*. As my interests have moved to other topics, I am no longer researching specific intelligences … I continue to speak informally about existential intelligence, the intelligence that allows us to pose and ponder 'big questions'; and, more recently, pedagogical or teaching intelligence, the intelligence (which only human beings have) that allows us to teach something to a person who is less knowledgeable and skilled than we are. I hereby give permission for anyone to speak informally about these intelligences. But I stop short of positing an endless string of new intelligences. Most candidates can be readily explained by the already posited intelligences. (para. 3)

It is clear that Gardner is no longer attempting to develop the ninth intelligence any further. Instead, he and his team have devised the Good Work Toolkit, which aims to engage students and teachers in discussions of purpose, values, morality and ethics. Indeed, what Gardner terms the 'Good Project' aims to understand the nature of

various ‘goods’ and to design tools for a good life through research, collaborations with various parties in society and publications of different materials such as books, toolkits and research papers (Harvard Graduate School of Education, 2014). Therefore, MI theory as it applied to this case study referred to the eight multiple intelligences previously discussed.

2.3 Educational implications of MI theory

MI theory supports the diversity of students’ strengths in school and other learning environments. Educators embrace MI theory and implement it in different educational settings ranging from pre-child to adult learning settings. Most findings have shown that MI theory enhances students’ learning, self-understanding and self-esteem and that research-based diversified teaching strategies are able to improve student outcomes (Armstrong, 2009; Berkemeier, 2002; Campbell, Campbell & Dickinson, 2004; Chen et al., 2009; Kezar, 2001; Viens & Kallenbach, 2004). For the application of MI theory to adult learning, Gardner (2004) recognises the findings of Viens and Kallenbach’s (2004) research and concurs that “MI can serve as a ‘releaser’ (helping adult learner to become assertive, more self-confident) and as a ‘greaser’ (helping them enter smoothly into studies that might have seemed forbidding before)” (p. viii). Gardner (2006a, 2009a, 2009b, 2011) identifies two educational implications of MI theory: individuation and pluralisation.

First, educators who embrace MI theory should pay attention to individual differences and individualise education so that each student can be reached in the optimal manner (Gardner, 2009a, 2009b). MI theory becomes a lens or perspective in the classroom that teachers can use to identify students’ intelligence profiles and provide different learning experiences (Hoerr, 2009; Kunkel, 2009; Viens &

Kallenbach, 2004). The advent of technology in the era of globalisation makes it possible to provide individualised teaching and assessment options to every person (Gardner, 2003, 2011). Second, intelligence is pluralistic, and any discipline, idea, skill or concept of significance should be taught in multiple ways. Some students learn better through stories and others learn better through artwork, hands-on activities or group work. Each of these approaches activates a "distinctive set of intelligences" (Gardner, 2011, p. 7). The author identifies seven entry points for students that reflect multiple teaching strategies: narrational, logical, quantitative, foundational (or existential), aesthetic, experiential and collaborative. According to Gardner (2006a),

> [The teacher functions] as a 'student-curriculum broker' who provides different entry points by using various sources of teaching materials – texts, films, music, stories, software to help students understand the subject matter well – be it a school subject, an avocation, their own homes, their own families – they can think of it in many ways and find the relevancy in real world which means students understand something well. (p. 141)

Gardner (2006a) highlights that multiple intelligences are not the end-state or goals of education. Indeed, there are many other educational goals such as "critical thinking, creative thinking, civil individuals in a civil society and interdisciplinary thinking and the like" (pp. 58-59). MI theory is significant in that it provides the means to achieve learning goals and supports the diversity of students' intelligences (Viens & Kallenbach, 2004).

Gardner (2011) reiterates that the two educational implications – individuation and pluralisation – do not depend explicitly on MI theory and that the same

recommendations for teaching approaches can indeed be found in other scholarly works. The important roles of MI theory are to "provide some scientific and empirical evidence for multiple teaching approaches and the theory provides teachers with the means or vocabulary to articulate beliefs about their teaching" (p. 7). The list of eight intelligences "gives names or well-defined vision of students' potentials which helps teachers organise their practices and see what is missing" (Viens & Kallenbach, 2004, p. 16).

With regard to the curriculum implications of MI theory, Gardner (2006a) notes that balancing specialised and comprehensive knowledge presents an educational challenge. From a developmental perspective, he suggests that adolescents aged 14-21 should remain exposed to "a broad range of topics, themes, subject matter, and value systems and that they be encouraged to engage in thinking that spans these topics" (p. 129). These topics fall under the umbrella of the liberal arts, including scientific and technological subjects, curriculum focusing on ethical issues, current events and communal and global problems. Gardner (2003) suggests that each course should include the ideas and ways of thinking most crucial to a discipline. Students should be able to use their knowledge and understanding to illuminate unfamiliar materials. In view of new accumulating knowledge, students should be given tools that allow them to continue to educate themselves once their formal education is at an end. In the era of globalisation, there is a need for students to think in an interdisciplinary way, as most of the "vexing issues of our time … require the capacity to think pluralistically, divergently, synergistically" (Gardner, 2003, p. 521). Some educators support the ideas of enhancing students' abilities to learn how to learn and helping them become life-long learners (Boroch, Hope, Smith, Gabriner, Mery, Johnstone, Asera & Nixon, 2010; Eisner, 2002; Taylor & Parsons, 2011).

MI theory apparently supports Eisner's (2002) curriculum ideology of cognitive pluralism. Cognitive pluralism is a concept involving both knowledge and intelligences. Eisner (2002) states that curriculum decisions about content inclusion and exclusion are crucial to providing students with opportunities to acquire knowledge and practice cognitive skills. A curriculum is a kind of mind-altering device. In a sense, it should be developed according to multiple forms of representation so that learners can be provided with opportunities to express themselves, represent their experiences or intentions and practice and develop particular mental skills. These cognitive skills or intelligences are not merely something learners have, but also something they use in practical ways, such as to solve problems. Yeung et al. (2012) elaborate that both Gardner's MI theory and Eisner's cognitive pluralism are the sorts of curriculum concept that seek to develop different cognitive skills in students:

> These skills are applicable to a wide range of intellectual problems. Examples of these cognitive skills are inquiry skills; higher-order thinking skills, such as critical thinking; and intellectual capabilities of classification, analysis, synthesis, and evaluation. These cognitive skills can be applied to any subject matter and in any circumstance. (p. 39)

How should educators assess students' performance and understanding of certain content? Gardner (2006a) admits that he once thought of creating a test for each intelligence – an intelligence-fair version – to determine correlations between scores on several tests. However, he moved away from making a quantitative measurement because doing so might have led to "new forms of labelling and stigmatisation" and he did not want to "inspire the creation of a new set of losers" (p.

70). Contrary to testing, Gardner (2006a) defines a new approach to assessment as "the obtaining of information about a person's skills and potentials with the dual goals of providing useful feedback to the person and useful data to the surrounding community" (p. 180). A good assessment instrument allows students to learn from the assessors' feedback about their strengths and weaknesses as they work on projects, problems or products that engage them. In such a case, the assessors are able to make much better predictions about students' ultimate real-world performance. Gardner (2006a) uses the term 'ecological validity' in reference to assessments occurring naturally within the environment, such as "domain projects and process-folios that lend themselves to assessment within the context of their production" (p. 181). Shearer (2009) suggests that MI assessment can help teachers understand students' strengths and needs and thus support teaching practices and instructional design and enhance students' self-understanding. Different educators have developed a number of assessment methods that are compatible with Gardner's idea of real-world ecological validity. These include "performance tasks; portfolios; presentations, exhibits and projects; observation scales; checklists; questionnaires; structured interviews; and self-reports" (Shearer, 2009, p. 354).

2.4 Application of MI theory to community college students

At the community college level, educators who embrace MI theory foster different kinds of research to provide supportive evidence that students' learning and self-esteem are enhanced when they are exposed to lessons inspired by MI theory, in which the instructors appreciate different abilities and adopt multiple teaching strategies to reach more students. Some interpretative studies have applied MI theory to adult learning in language and general courses (Viens & Kallenbach, 2001, 2004; Wallace, 2010) and science courses (Berkemeier, 2002). Some other

researchers have used quantitative surveys to understand the effect of students' self-reporting of MI strengths on their ability to learn from online courses (Lopez & Patron, 2012) and general courses at community colleges (Griggs et al., 2009). Some educators who embrace MI theory have advocated the delivery of an MI-based curriculum and pedagogies in higher education in the era of globalisation given the new generation's levels of creativity, multi-tasking ability and critical thinking (Barrington, 2004; Chen et al., 2009; Diaz-Lefebvre, 2004; Kezar, 2001). With regard to teaching practices and student learning, Armstrong (2009) reaffirms that "MI theory makes its greatest contribution to education by suggesting that teachers need to expand their repertoire of techniques, tools and strategies beyond the typical linguistic and logical ones predominantly used in American classrooms" (p. 54). Students' perceptions of their learning experiences in the MI-based curriculum and pedagogies represent the major research enquiries in most MI-related studies. The results of both quantitative and qualitative analyses have revealed that participating students show high learning motivations and positive attitudes and actively engage in the MI-instructed class activities, and have advised instructors to be more mindful of multiple intelligences preparing their lessons to reach more students (Armstrong, 2009; Berkemeier, 2002; Chen et al., 2009; Griggs et al., 2009; Viens & Kallenbach, 2001, 2004; Wallace, 2010).

Researchers have addressed common questions to validate and authenticate MI studies. For instance, how does an MI-informed lesson differ from a typical teaching practice? How should a student's performance in an MI-based course be assessed? Leslie Rocka was one of the teacher-researchers who participated in the Adult MI Study under the auspices of the National Centre for the Study of Adult Learning and Literacy at Harvard Graduate School of Education. She realised that the multi-sensory teaching approach she adopted in her reading and writing lessons

used only the senses to impart information and did not allow students any choices in expressing their understanding. Thus, she integrated MI theory into her multi-sensory teaching approach by giving students choices in relation to the reading comprehension component of her curriculum. Rocka (2001) arrives at the following conclusion in her study:

> We thought that if students were expressing and processing the information in as many ways as possible, this would assist them in using their strongest intelligences to understand the information. … We began to consistently create lessons that were more interactive and action oriented. Students worked together, gave presentations, acted in skits, organized presentation charts, drew or sculpted scenes, etc. They seemed to comprehend the writing well enough that they could teach it to others. (p. 201)

Wendy Ouinones, another teacher-researcher, also integrated MI theory into her popular education course for disadvantaged women. Quinones (2001) finds in her study that MI theory supports her efforts in ways that enhance her teaching methods and the popular-education-based goals and strategies of the class:

> In terms of applying MI in my classroom, I feel that the structure of student choice is one of the most important of its success. Allowing students some control over their learning reduces the almost inevitable human reaction against the imposition of authority, and encourages students to accept the validity of the activities they participate in. ... Students can be willing to undertaking even the most boring of drills if they have chosen them for their own reasons;

likewise, they can be wildly experimental and take otherwise unlikely risks if, for their own reasons. (p. 197)

Hence, the most important factor in Ouinones's (2001) MI-informed activities is to give students opportunities to demonstrate their understanding of key concepts through MI-informed projects of their choosing: "I feel myself genuinely more respectful of non-linguistic intelligences. … I must also acknowledge that students may learn many other important and valuable things as well, whether they are connected to the ostensible subject at hand or to other insights" (p. 197). Gardner (2011) also emphasises this point when identifying the importance of multiple intelligences. Indeed, students may process information in many kinds of ways to solve problems or create products.

Concerning the impact of the project on teachers, Viens and Kallenbach (2001) reveal that the teacher-researchers involved grew professionally and personally by integrating MI theory into their teaching methods: "MI pushed them to understand and hono[u]r their students' strengths and learning preferences and find ways to utilize them for meeting learning goals" (p. 2). Armstrong (2009) admits that MI as a philosophy guiding instruction is hardly a new concept. However, teachers in MI classrooms differ from teachers in traditional linguistic/logical-mathematical classrooms in terms of their awareness of their teaching methods. In MI classrooms, teachers keep their educational objectives firmly in mind and use pluralistic teaching methods, materials and techniques that can be implemented in practice through the multiple intelligences to reach a wider and more diverse range of learners. MI theory provides "a way for all teachers to reflect upon their best teaching methods and understand why these methods work (or why they work well for some students but not for others)" (Armstrong, 2009, p. 56). Armstrong's (2009) seven-step

procedure to create lesson plans is a useful entry into an MI-inspired curriculum. One of its steps involves asking eight key MI planning questions. Each question is related to one type of intelligence (Table 2.2).

Table 2.2 Key MI planning questions

Multiple Intelligences	MI Planning Questions
Linguistic	How can I use the spoken or written word?
Logical-Mathematical	How can I bring in numbers, calculations, logic, classifications or critical-thinking skills?
Spatial	How can I use visual aids, visualisation, colour, art or metaphor?
Musical	How can I bring in music or environmental sounds or set key points in a rhythmic or melodic framework?
Bodily-Kinesthetic	How can I involve the whole body or use hands-on experiences?
Interpersonal	How can I engage students in peer sharing, cooperative learning, or large-group simulation?
Intrapersonal	How can I evoke personal feelings or memories or provide students with choices?
Naturalist	How can I incorporate living things, natural phenomena, or ecological awareness?

Armstrong (2009), p. 65.

In view of individual differences between students, Armstrong (2009) advises instructors to incorporate a broad range of teaching strategies. In such a case,

students are given more opportunities to use their strengths in classroom activities. Table 2.3 shows examples of different teaching activities.

Table 2.3 Summary of eight teaching methods

Multiple Intelligences	Teaching Methods (Examples)
Linguistic	Lectures, discussions, journal writing
Logical-Mathematical	Problem solving, science experiments, number games
Spatial	Visual presentations, art activities, mind mapping
Musical	Using songs that teach, rhythmic learning
Bodily-Kinesthetic	Hands-on learning, drama, tactile activities
Interpersonal	Cooperative learning, simulations, peer tutoring
Intrapersonal	Independent study, options in course of study, individualised instruction, self-esteem building
Naturalist	Nature study, ecological awareness, care of animals

Adapted from Armstrong (2009), pp. 58-59.

As Armstrong (2009) reiterates, there are no standard guidelines to follow and MI theory can be applied to the curriculum in different ways. He mentions that Kovalik's (1994) Integrated Thematic Instruction (ITI) can connect students to the real world and help them learn about issues from interdisciplinary approach according to which themes weave together subjects and skills found naturally in life. As such, students are given opportunities to use their multiple intelligences in practical ways. Armstrong (2009) advises that MI teachers should "reach beyond

the intelligences you may currently be teaching to, so that every child has the opportunity to succeed in school" (p. 69).

2.5 MI theory and general education in Hong Kong community colleges

Adding general education courses to core curriculum across undergraduate programmes was the focus of curriculum reform in most local universities in 2012. In community colleges, generic skill courses (including general education) were required to "increase from 20% (in year 2000) to 60% (from year 2012 onwards) of the curriculum" (EDB, 2011, p. 3). Hong Kong has experienced unprecedented education reforms, and the new academic structure comprising a three-year school curriculum at the senior secondary level and a four-year undergraduate programme at the university level has already been fully implemented. This section describes the purposes of general education and course structures in addition to the dimensions of knowledge and skills commonly found in the Hong Kong community college curriculum. It also identifies the common elements shared by MI theory and general education in terms of educational philosophy, teaching practices and assessment methods.

2.5.1 Background

Some scholars have expressed concerns about the implementation of effective general education in Hong Kong higher education and particularly whether the goals of general education can be achieved in terms of student learning and teaching practices. Jaffee (2012) mentions that:

> there will be contradictions and tensions in the implementation of effective general education in Hong Kong because the current structure of higher education is based on the British system and the prevailing culture of teaching and learning favours specialisation within a discipline in Hong Kong universities. (p. 193)

Curry (2012) echoes this observation and identifies the following challenges to implementing general education:

> [T]he culture of learning and teaching in Hong Kong, which is moving from a three-year university system that favoured early specialisation within a discipline and the move to 4-year degree programmes reflects the larger international trend toward a more broadly based, liberal arts focus at the undergraduate level. (pp. 223-224)

It seems that the institutional culture presents a fundamental challenge, as most of the traditional universities must develop general education from scratch. Faculties require new insights into teaching and learning, and students must be given an opportunity to study non-specialised knowledge. As Lewis (2011) observes, the old questions relating to general education in the United States such as "the larger purpose of general education, breadth and depth of the contents, teaching strategies, the assessment methods of both teaching and learning, and students' learning experiences are currently being faced in Hong Kong" (p. 7). In terms of course design and pedagogy, most of the universities in Hong Kong began preparing for the new reform as early as 2008, and renowned overseas educators and professors

(mainly from the United States) who were experienced in general education were invited to Hong Kong to share their teaching strategies and students' learning experiences. (Hong Kong-America Centre [HKAC], 2012). The comprehensive general education forum, in which all eight of the publicly-funded universities in Hong Kong participated with the support of the Hong Kong University Grants Committee, was organised by the Hong Kong-America Centre under the United States Consulate. Under the Fulbright Hong Kong General Education Project, a number of Fulbright scholars were invited to Hong Kong each year between 2008 and 2012 to conduct workshops and seminars across the universities (HKAC, 2012). During the four years of preparation for the new university system, each university set up its own office or department to facilitate the implementation of general education in 2012.

Compared with universities, Hong Kong community colleges offering associate degree programmes have over ten years of experience providing broad-based curriculum. Their local roots, contexts and missions are similar to those in the United States. In 2000, the Hong Kong Chief Executive enacted a policy to raise the participation rate in post-secondary education from 33% to 60% within ten years in view of new economic developments that would occur during the era of globalisation. It was thought that providing associate degree programmes could "open up the access to higher education and at the same time contribute to the upgrading of the human capital of Hong Kong" (Lee & Young, 2003, p. 151). Globalisation has created a process in which the global economy now demands all workers to have basic post-secondary skills. Economies have shifted from being manufacturing and service based to knowledge based, and the pace of technology has advanced to create large amounts of knowledge in the forms of new information, ideas and possibilities (Frost, 2009; Raby, 2009). As the global markets are

dynamic and continually shift to shape the needs and demands of local and regional labour markets, community colleges must be responsive to the market by ensuring timely curriculum development and flexibility, the presence of skilled teachers, innovative vocational training, economic efficiency, credential diversification, community outreach and industry partnerships (Mars, 2013; Valeau, 2009).

In 2005, the overall post-secondary participation rate in Hong Kong higher education reached 66%. The target was achieved and the original projected schedule and scale were exceeded. This expansion took place almost exclusively in the self-financing post-secondary sector largely due to the expansion of self-financing associate degree programmes provided by community colleges, which were mostly extensions of their parent universities or continuing education divisions (Postiglione, 2009; UGC, 2010). According to the University Grants Committee (2010), the government defined the transition of Hong Kong into a high value-added, knowledge-based economy and high quality provider of services in view of global competitiveness and this economy required an educated population:

> Although the educational strategy and investment in the post-secondary sector has been driven by perceived local economic targets, higher education should produce not just knowledge-rich students but also thoughtful, self-reliant, adaptable and contributing citizens capable of social and civic responsibility in the era of globalisation. (p. 16)

At the societal level, post-secondary education is expected to provide students with broad-based knowledge in addition to opportunities to develop different levels of the cognitive skill required in society. Under these circumstances, the inclusion of general education in every post-secondary programme reflects the need to develop

new curriculum and pedagogical methods to meet ever-changing societal expectations.

2.5.2 General education in community colleges

Purposes

Why are young people required to take general education courses? Although Hong Kong universities offer different interpretations and definitions of the purposes of general education courses, most agree they are part of a policy-driven curriculum that caters to the needs of new four-year undergraduate programmes. However, the most common objectives of general education requirements include establishing students' breadth of knowledge; enhancing students' computation skills, written expression and critical thinking; and providing knowledge that helps students make decisions in their everyday lives. The purposes of general education in the Hong Kong context are apparently similar to those of the United States. Cohen (1988) defines:

> General education is the process of developing a framework on which to place knowledge stemming from various sources. Its goals are to help students think critically, develop values, understand traditions, respect diverse cultures and opinions, and most important, put that knowledge to use. It is holistic, not specialised; integrative, not fractioned; suitable less for abstract contemplation than for application. (p. 1)

These are the types of knowledge and skill that general education should offer. Lewis (2011) identifies that general education does more than combat narrowness; indeed, it helps "fulfil the potential of the individual and to instill a sense of one's

role in the world and its future" (p. 9). The deepest part of general education is moral education, which involves teaching those 'privileged' enough to receive a good education to use it for good purposes (Lewis, 2011).

At the community college level, Generals (2012) discusses the United States experience and reminds education providers that they must not lose sight of the role of general education, as "community colleges graduates are a sizeable portion of the American population entering the job market and assuming positions of authority and civic responsibilities" (p. 4). Hanson (2010) suggests that educators prepare community college students for the economic, social and political realms of society. The knowledge and skill objectives of general education and liberal arts could be combined. Hanson (2010) explains that:

> [t]he liberal arts provide a foundation upon which people strive in relation to the prominent figures in human history, and in the process talents are realised, creativity is unlocked, and potential is brought to bear on problems of importance to the nation and the world. (p. 125)

The Hong Kong context

In light of the territory-wide academic structure reform and the public confusion over the objectives of the associate degree (pro-American education system) and higher diploma (pro-British education system) programmes, the Education Bureau has clearly defined and revised the objectives and learning outcomes of the associate degree programme that prepares students to build articulation pathways to university. Vocational training and career aspirations should comprise the objectives of the higher diploma programme. According to the revised common descriptors, 60% of

associate degree curriculum should consist of generic content (such as language, information technology and general education). The objectives of the associate degree programme as defined by the Education Bureau (2011) are as follows:

> Through the rich generic content of its curriculum, an AD should equip students with a broad knowledge base and a solid foundation of generic skills, as well as the specialist knowledge and skills required for further study in a chosen discipline. It should also cultivate a spirit of lifelong learning, develop the ability to learn how to learn, and encourage the pursuit of active citizenship. (p. 1)

In short, the role of community colleges is to address the requirements of an increasingly diverse and complex environment and provide every person the opportunity to attain a well-rounded development and achieve life-long learning.

2.5.3 Common elements of MI theory and general education

Community colleges play an important role and provide another alternative for academically underprepared students to acquire any college credentials necessary to transfer to four-year universities. In addition, community college students are given ample opportunities to find out more about their own interests, aptitudes, strengths and aspirations through general education (Lee & Young, 2003; Mars, 2013; UGC, 2010). In the following sections, the common elements shared by MI theory and general education at the community college level are identified in terms of educational philosophy, teaching strategies and assessment methods.

Educational philosophy

According to the new regulation, at least 60% of community college curriculum consist of generic contents including language, information technology and general education (EDB, 2011). The University Grants Committee (2010) states that:

> [the Hong Kong government] attaches great importance to the development of post-secondary education in Hong Kong and strives to provide young people with quality, diversified and flexible study pathways with multiple entry and exit points, so that they can equip and continue to upgrade themselves and contribute to society. (p. 29)

It is clear that the goal of post-secondary education is to provide young people with broad-based knowledge related to language, mathematics, leadership, history, art, music and sports. Students should be given opportunities to learn in different ways and show their abilities in practical ways. Supporting a diversity of student potential is the MI educational implication of individuation (Gardner, 2006a, 2009a, 2009b, 2011). Students possess different intelligences, and there is no circumstance preventing them from using those intelligences. Education providers should give students more opportunities to realise their strengths, demonstrate their mastery of knowledge and practise their multiple intelligences in different ways.

Teaching strategies

In Hong Kong, the need for students to be thoughtful, self-reliant, adaptable and contributing citizens throughout the entire education cycle should not be restricted (UGC, 2010). Gardner (2003) observes that for students to participate fully in the global society, they must be able to think in an interdisciplinary way; take pluralistic, divergent and synergic approaches to understanding social issues; and learn how to

learn. He continues to note that "[i]n the era of globalisation, students are exposed to diverse cultural settings, multinational financial and marketing systems that connect economies in an unprecedented manner, huge amounts of instantly accessible information, powerful media and technologies that shape public opinion" (Gardner, 2003, p. 520). According to Gardner (2004), "at the heart of MI theory are educational implications that are precisely the opportunities to create an approach that best suits each group and each individual" (p. viii).

In terms of curriculum development and teaching strategies, Armstrong (2009) states that more educators are recognising that teaching instruction should connect students to the real world and that it is important to teach students from an interdisciplinary viewpoint. He suggests that teachers should adopt an integrated thematic instruction lesson-planning model suggested by Kovalik (1994). Such an instruction model is closely aligned with MI theory and provides students with opportunities to use their multiple intelligences in practical ways. Indeed, MI theory provides "a context for structuring thematic curricula" and "a way of making sure the activities selected for a theme will activate all eight intelligences and therefore draw upon every child's inner gifts" (Armstrong, 2009, p. 69).

MI theory is easily accepted by both teachers and students in community colleges, as the Hong Kong educational environment has long been receptive to the idea of individual differences, multiple teaching approaches and a focus on the arts and creative activities (Education and Manpower Bureau [EMB], 2005). Gardner (2009b) suggests that there are a number of reasons why MI theory has been "widely adopted by different educational institutions around the world and believes the findings show that student learning is being enhanced" (p. 13). The first factor is "a desire to reach underserved students" (Gardner, 2009b, p. 14). This factor is quite relevant to the Hong Kong context, as most academically underprepared students

consider community college as a necessary part of the transition into four-year universities. It appears that community colleges are a vehicle to help students succeed. The second factor is "a desire to broaden curricula, pedagogy and assessments" (Gardner, 2009b, p. 14). Hong Kong's new academic structure was implemented in 2012. The system-wide educational reform included adding general education to core curriculum in universities, increasing the percentage of generic skill courses (language, information technology and general education) in community colleges, focusing on student-centred pedagogies and diversifying assessment methods. Under these circumstances, Gardner (2009b) confirms that :

> MI can be a useful vehicle for broadening the remit of education: to include subjects that address the several intelligences and ways of thinking, as well as teaching methods that speak to individual differences, and assessments that go beyond standard, short-answer language and logic instruments. Even when the focus remains on science and mathematics, an MI approach can open new possibilities for mastery. (p. 14)

These two factors contribute to the exploration of MI theory at community colleges in the Hong Kong context.

Outcome-based assessment

The Education Bureau, Hong Kong Council for Accreditation of Academic and Vocational Qualifications, and Joint Quality Review Committee (2009) published a handbook for the sub-degree sector that focuses on good practices in quality assurance and defines assessment as follows:

> Assessment in education is used to evaluate knowledge, performance or skills; provide a grade or benchmark against which performance can be measured; show those external to the institution the level of [students'] achievement; [and] form part of the teaching and learning process itself. (p. 84)

Many institutions are moving towards the use of outcome-based approaches in their teaching strategies and student learning to improve these measures. This may lead to an increasing diversity of assessment tasks such as continuous assessments, which provide opportunities for students to demonstrate their mastery of a range of intended learning outcomes and receive structured feedback about their achievements to enable continuous improvement. Table 2.4 indicates the learning outcomes of the associate degree programme as defined by the Education Bureau.

Table 2.4 Learning outcomes of the associate degree programme as defined by the Education Bureau

At the end of the programme, the student should demonstrate the following.
1. A solid foundation of generic skills, including languages, information technology, interpersonal communication, quantitative and analytical skills, skills in evaluating information for planning and investigative purposes, critical-thinking and problem-solving skills and the ability to learn how to learn.
2. A broad theoretical understanding of the chosen discipline and its application.
3. An appreciation and basic understanding of the skills and knowledge required by various disciplines and areas of study through general education, including studies in the liberal arts and sciences.
4. A theoretical foundation upon which further study in the discipline at the degree or professional levels can be built.
5. A stronger self-awareness and understanding of one's aptitudes, abilities, orientations and inclinations.
6. An appreciation of the major socio-political, cultural and economic issues in the local, national, regional and international contexts.

7. A strong sense of social responsibility and civic values, a passion to pursue creativity and innovativeness and a spirit of lifelong learning.

Education Bureau (2011), p. 2.

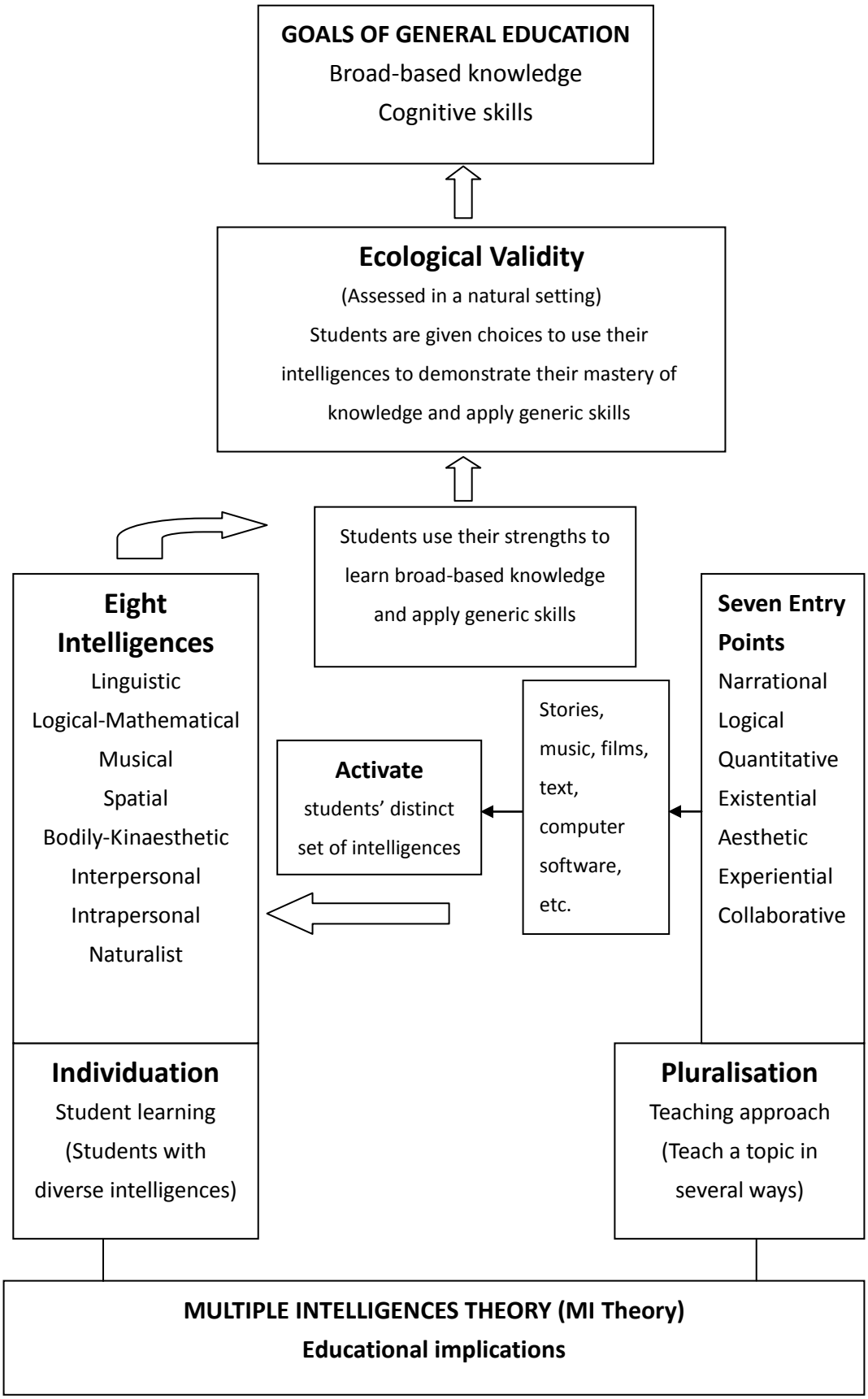
Gardner's (2006a) 'ecological validity' addresses assessment diversity, which infers that students' performance is determined by their learning experiences in natural settings (p.181). Students demonstrate their mastery of knowledge and problem-solving skills while working on projects or class activities that are grounded in MI theory and complement the diversity of the students' strengths. Teachers provide prompt feedback about the students' strengths and weaknesses in accomplishing a task instead of commenting on whether the students arrived at correct or incorrect answers. Gardner (2006a) affirms that quantitative measurement is not the only assessment method. Paper and pencil tests mostly assess one's linguistic and logical-mathematical intelligences. In 2013, Gardner gave an interview to *The Washington Post* in which he again accentuated that students possessed different intelligences. Once students determine their strengths, they can create important knowledge that is not necessarily restricted to their own intelligences. For example, a student who is music intelligent may not be restricted simply to being good at playing a musical instrument or remembering music notes. Using their music intelligence, students may be able to understand important historical, artistic or philosophical concepts. Students should be given opportunities to draw on different intelligences to learn. Hence, assessment methods should not be restricted to quantitative measurement. Furthermore, educators should not overlook qualitative assessment, which could effectively be used to assess student performance. For example, teachers comment on students' strengths and weaknesses when they are working on projects and class activities. Gardner (2013, October 16) concludes the following:

> Recognizing this fact, the concept of intelligences does not focus on how linguistic or spatial information reaches the brain—via eyes, ears, hands, it doesn't matter. What matters is the power of the mental computer, the intelligence, that acts upon that sensory information, once picked up. (para. 11)

2.6 The framework of the study

The educational aims of MI theory are to individualise and pluralise teaching. According to Gardner (2006a), the teacher functions as "a student-curriculum broker who provides different entry points by using various sources of teaching materials" (p.141) due to the diversity of students' intelligences. Gardner (2013) posits that "instead of 'one size fits all', [educators should] learn as much as you can about each student, and teach each person in ways that they find comfortable and learn effectively" (para. 14). In addition, Gardner believes that educators should pluralise teaching: "Teach important materials in several ways, not just one (e.g., through stories, works of art, diagrams, role play). … Also, by presenting materials in various ways" (para. 14). In light of the educational implications of MI theory, I conducted a case study of the instructional design and teaching practices I adopted in a general education course at a community college. Diagram 2.1 outlines the MI theoretical elements used for the teaching and analysis applied in this case study.

Diagram 2.1 MI framework of the study



Community college students in Hong Kong are mostly academically underprepared and may encounter difficulties in the linguistic and logical-mathematical spheres. According to MI theory, students have diverse intelligences, and once they are given chances to pick up their intelligences through pluralistic teaching and apply them in practical ways, they successfully achieve learning outcomes such as the development of critical-thinking, communication and problem-solving skills. They may even be able to apply the course content they learn to real-life situations and create important knowledge. This case study was conducted in relation to the educational framework of MI theory (Diagram 2.1).

Most community college students are not well-prepared for college study and lack the motivation to learn. However, students possess great potential and can develop positive attitudes towards learning with the proper guidance. The role of teachers is to give students opportunities to learn and develop their full potential. Motivating students to learn was my first priority when teaching at the community college. How does a course instructor design and teach general education? Viens and Kallenbach (2001), two MI educators, inspired me to explore the application of MI theory to my teaching practices. The two educational implications of MI theory – individuation and pluralisation – provide qualitative descriptions of students' multiple intelligences and vocabulary and articulate my beliefs about teaching. According to MI theory, motivating students means activating their distinct set of intelligences (Gardner, 2013), which further confirms my belief about student learning. The theory gave me a lens though which to view my students' potential, which could be defined by the eight intelligences. It helped me reflect on my educational philosophy that the diverse range of student intelligence should be appreciated. I used MI theory as an instructional framework to prepare my teaching plan and create class activities. I had long supported innovative teaching at the time

of this case study, and MI theory allowed me to shape my teaching strategies. When I designed my teaching plan, I used pluralisation theory to select the course theme and choose cases to illustrate the topics. Furthermore, I collected different multimedia resources from the Internet for use as teaching tools to offer broad-based knowledge and a reality-based curriculum. I translated the seven entry points into multimedia sources as a teaching strategy. In doing so, I taught the topics in a variety of ways to meet the students' learning needs. The students' multiple intelligences were activated through the seven entry points (multimedia resources) and they were able to use their strengths to learn. As such, both individuation and pluralisation theories comprised the theoretical foundation for my teaching practices. In terms of measuring learning outcomes, paper and pencil tests are not recommended by MI theory, as they only assess one's linguistic and logical-mathematical intelligences. Gardner (2006a) advances the idea of ecological validity and posits that qualitative assessment in a natural setting can be used to assess students' learning experiences. Based on the MI concept of ecological validity, I created new guidelines for group projects that provided the students with more opportunities to use their intelligences, demonstrate their mastery of knowledge and apply generic skills to real-life situations. In this case study, I used MI theory as a theoretical framework to teach and reflect on my teaching practices throughout a 13-week general education course at a community college.

CHAPTER THREE: RESEARCH DESIGN

This chapter outlines the methodological considerations of the case study. In general, a case study research design is best suited for research conducted within a real-world context and helps one gain an in-depth understanding of real-life cases. The following sections examine the sampling strategy and research instruments used in this case study.

3.1 Research design strategy – Case study

Denzin and Lincoln (2011) define the following:

> [Qualitative research involves] study[ing] things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meanings of people bring to them … [and the] collection of a variety of empirical materials - case study, personal experience, introspection, life story, interview, artefacts, cultural texts and productions along with observational, historical, interactional, and visual texts. (pp. 3-4)

The qualitative case study approach delineated by Creswell (2013, 2014), Merriam (1988), Stake (1995) and Yin (2012, 2014) appears to be the most appropriate research method for investigating teaching practices in general education courses. This case study was based on the following methodological considerations.

Real- life context

Yin (2014) stresses that case study research is conducted "within its real-world context" (p. 16), that "the desired case should be some real-life phenomenon that has

some concrete manifestation" (p. 34). Creswell (2013) notes that "real-life cases … are in progress so that they can gather accurate information not lost by time" (p. 98). A qualitative case study is conducted to "understand the meaning of an experience in natural settings. The analysis strives for depth of understanding" (Merriam, 1988, p. 16). According to Yin (2014), the case study research method is mostly well-suited to 'how' and 'why' questions. As Merriam (1988) mentions, personal experience often presents research problems, and certain case studies "may focus on educational needs; information for programme planning, development, and implementation; or the effectiveness of a practice" (p. 43). These case studies fall within a real-life context and pedagogical situation and can be considered intrinsic. According to Stake (1995), such case studies are conducted not to "learn about other cases or about some general problem, but because we need to learn about that particular case" (p. 3).

In-depth understanding

Stake (1995) expects qualitative case studies to offer "thick description", "experiential understanding", and "multiple realities" (p. 43). Such in-depth understanding contributes to the knowledge base and practice of education. As Merriam (1988) describes, "such insights into aspects of educational practice can have a direct influence on policy, practice and future research" (p. xii). According to Creswell (2013), the case study strategy is suitable for collecting and analysing data:

> in which the investigator explores a real-life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information (e.g., observations,

> interviews, audiovisual material, and documents and reports), and reports a case description and case themes. (p. 97)

Therefore, the case study approach was the most suitable research strategy for this study, which aimed to gain an in-depth and contextual understanding of real-life teaching practices and student learning in a general education course at a community college in the Hong Kong context.

Descriptive case study

As described by Merriam (1988), when choosing a case study strategy, researchers should consider whether the desired end product is a "holistic, intensive description and interpretation of a contemporary phenomenon" (p. 9). Merriam (1988) also affirms that "[c]ase study research is qualitative in nature, emphasizing description and interpretation within a bounded context" (p. 21). Stake (1995) mentions that the data being presented are not completely without interpretation:

> [C]ase study reporting is not simply storytelling. … [T]he development of the report will more likely follow … one of these three paths: a. a chronological or biographical development of the case; b. a researcher's view of coming to know the case; c. a description one by one of several major components of the case. (p. 127)

Creswell (2013) also remarks that "[a] key to understanding analysis is that good case study research involves a description of the case" (p. 98). At the end of the study, the researcher can present the overall meaning generated from the cases and general lessons learnt from studying those cases. This is what Stake (1995) means

by “assertion”: “I will summarise what I feel I understand about the case and how my generalisations about the case have changed conceptually or in level of confidence” (p. 123).

Rationale for single case study

According to Yin’s (2014) rationale for the single-case-study design, a case related to the theoretical propositions of interest should be selected:

> [T]he theory should have specified a clear set of circumstances within which its propositions are believed to be true. The single case then can be used to determine whether the propositions are correct or whether some alternative set of explanations might be more relevant. (p. 51)

The single-case-study research strategy is useful in understanding the voices of students, as the research “is qualitative in nature, emphasizing description and interpretation within a bounded context” (Merriam, 1988, p. 21). Additionally, a single case can be used to refine or extend any current theory that represents a significant contribution to knowledge (Yin, 2014).

3.2 Sampling strategy

Yin (2014) identifies five components for a case study research design. The first three involve identifying research questions, studying theory-related propositions to form a theoretical framework for the study of interest and defining and bounding the case. The final two components relate to data analysis, and involve considering the logic that links the data to the propositions and the criteria for interpreting the findings. Yin (2014) suggests that case study research is most

often appropriate for 'how' and 'why' questions. Propositions related to theories or current work provide a "sufficient blueprint" for a case study and "will enable the complete research design to provide surprisingly strong guidance in determining the data to collect and the strategies for analysing the data" (Yin, 2014, p. 38). Before defining and bounding a case, Yin (2014) emphasises that the researcher must "study questions and study propositions to help identify the relevant information to be collected about this individual or individuals [if the individual is the primary unit of analysis]" (p. 31). Each research question may be associated with a different unit of analysis. The beginning and ending of a case study may be estimated in this way.

Merriam (1988) advises that "non-probability sampling is the method of choice in a qualitative case study" (p. 47). Fogelman (2002) also mentions that non-probability sampling, for example, "a convenience sample [,] is one composed of members most easily available to the researcher, who does not attempt to make them representative of a wider population" (p. 101).

I selected one of my classes (Class A) in the first semester of the 2012/13 academic year at random to review my teaching practices in my first year of teaching in a general education course. During the 2013/14 academic year, I selected one of my classes (Class B) as the case of interest to gain in-depth understanding of my teaching practices and student learning in an MI-inspired general education course. Throughout the 13-week course, I kept a teacher journal to record my reflections, initial interpretations, confusion and hunches as a participant observer. To construct a knowledge base for the teaching practices and student learning involved in a general education course, I collected information about the students' perceptions of their learning experiences by conducting one-on-one interviews. I selected the participants based on convenience sampling, as the data were easily available. The case study covered the 2013/14 academic year. The students in Class B completed

an MI-inspired general education course in the second semester of the 2013/14 academic year. During the final lecture, I informally explained to Class B that I was going to conduct research related to the learning experiences of the students in my course and asked them if they were interested in participating. Twelve of the students were willing to share their learning experiences with me. After the examination results were released in June 2014, I invited the twelve students to participate in hour-long one-on-one interviews to be held in July and August (Appendix 1). Six students agreed to attend the interviews, which were conducted between July and August 2014 (Table 3.1) in the student study room at the college.

Table 3.1 Profile of student participants

Pseudonym	**Concentration**	**Gender**	**Age**
Hing	Film and TV	Female	21
Bean	Business	Male	21
Sun	Journalism	Male	18
Nam	Journalism	Male	20
Bun	Business	Male	20
Yan	Business	Female	23

3.3 Validity

Triangulation is a strategy used to validate the accuracy of findings and interpretations in research (Creswell, 2014). In addition to the interview data collected at the research site, documents such as my observational notes taken in teacher journal, teaching progress reports, the students' written self-reflections on group projects and the teaching evaluation reports were examined and used to

crosscheck the validity of the findings to enhance the accuracy of the qualitative case study.

3.4 Limitations and strategies for minimising effects

As Yin (2014) reminds, a common concern about case studies is the "apparent inability" to generalise their findings (p. 20). Yin (2014) stresses that there is a distinction to be made between the "analytic generalisation" and "statistical generalisation" (p. 40). The latter is not an appropriate choice for evaluating the quality of a research design, as a qualitative case study is not a sampling unit. Yin (2014) argues that "case studies, like experiments, are generalisable to theoretical propositions and not to populations or universes" (p. 21). Another limitation of convenience sampling is its representation of the unit of analysis. Fogelman (2002) mentions that "a convenience sample is one composed of members most easily available to the researcher, who does not attempt to make them representative of a wider population" (p. 101). In this regard, multiple sources of information and data should be examined and used to crosscheck the credibility and validity of the findings. If the researcher is positioned as a participant observer in a case study, he or she is disadvantaged in documenting the data while participating in class activities (Creswell, 2013). The researcher must record and expand observations as completely as possible, and the work must be completed within one week due to the effects of fading memory. The use of interviews as a research instrument also presents limitations. Although interviews are the most popular instruments for obtaining the voices of participants, they present some disadvantages that should not be overlooked (Creswell, 2014; Wragg, 2003). Interviews may only provide information that is filtered through the views of the interviewers. The presence of the researcher may affect how the interviewee responds. Interviewees may not be

able to express themselves nor enjoy self-analysis (Creswell, 2014). Informed by this advice, I assured that the student participants in this case study were free to voice their experiences and feelings without being restrained by my research assumptions during the interviews. I made it a point to write down all of the information provided by the student participants.

3.5 Ethical issues

Punch (2006) makes it clear that the researcher's ethical responsibilities include "the overarching principles of academic integrity and honesty, and respect for other people" (p. 56). The author also explains that "[a]ll social research involves consent, access, and associated ethical issues, since it is based on data from people and about people" (p. 69). According to O'Leary (2004), "researchers are unconditionally responsible for knowledge production with integrity and rigour; on the other hand, researchers should ensure the dignity and well-being of the research participants" (p. 50). In general, the ethical issues that must be considered when collecting data include consent, confidentiality, honesty, perceived harm and risk and potential conflicts of interest (Busher, 2003; Creswell, 2014; O'Leary, 2004; Punch, 2006). In this case study, pseudonyms were given to both the community college and student participants to ensure the confidentiality of the research and their personal information.

Creswell (2014) also advises that it is important to identify guidelines for ethical practices, as participants are asked to discuss "private details of their life experience over a period of time" (p. 251). Busher (2003) makes aware that "definitions of professional ethical practice are often enshrined in codes to guide the decisions of researchers" (p. 75). Furthermore, as Punch (2006) reminds, the researcher should think through the ethical issues involved in complying with a

university's requirements at the proposal development stage. O'Leary (2004) and Yin (2014) both advise that the researcher should obtain ethics approval from relevant university committee(s). In addition, Creswell (2014) stresses that if the research site of a case study is located within another organisation, then it is important to obtain approval from both the university and individuals at the research site. The author further affirms that "gaining permission to study the site in a way will enable the easy collection of data" (p. 151). Busher (2003) emphasises the importance of the following principle:

> The ethical principle is to leave both the participants and the research field (the context of the research) no worse off at the end of a research intervention and the researcher should be sensitive to individuals, populations being studied and research sites. (p. 82)

In this regard, this study strictly followed the "Guidelines for survey and behavioural research ethics", "Ethical guidelines concerning the use of human research participants" and "Guidelines on ensuring confidentiality of research and personal data" issued by the Chinese University of Hong Kong (2014). The application for undertaking a case study to collect data related to human behaviour was approved by Survey and Behavioural Research Ethics Committee of the Chinese University of Hong Kong on 12 May 2014. The research site was located within another organisation – a community college, which was the context of the case study. Verbal permission from both the director of the college and the senior staff responsible for ethical issues in research was obtained in July 2013.

3.6 Data collection procedures and research instruments

Creswell (2013) suggests the use of a matrix of information sources containing four types of data – interviews, observations, documents and audio-visual materials – that are able to infer the complexity of a case:

> Case study data collection involves a wide array of procedures as the researcher builds an in-depth picture of the case. … Our intent is to convey through this matrix the depth and multiple forms of data collection, thus inferring the complexity of our case. The use of a matrix, which is especially applicable in an information-rich case study, might serve the inquirer equally well in all approaches of inquiry. (p. 163)

As such, Yin's (2014) case study protocol provides a road map for the collection of multiple information and data sources. According to Yin (2014), the development of a case study protocol is important, as it guides the actual data collection process. The case study protocol is more than a questionnaire or instrument. Indeed, it provides the researcher with clear and comprehensive procedures when collecting qualitative data (Table 3.2).

Table 3.2 Case study protocol

Procedures and items
1. Case study overview: objectives, research questions, theoretical framework and key readings.
2. Data collection procedures: procedures for protecting human subjects, identification of sources of data and other logistical reminders.
3. Data collection instrument: specific questions and potential sources of evidence for addressing each question.
4. Case study report guide: outline; format for the data, use and presentation of

other documentation; and bibliographical information.

Adapted from Yin (2014), pp. 84-85.

Table 3.3 provides an overview of the data collection procedures and corresponding data collected.

Table 3.3 Research questions and corresponding data collected

Research questions		**Research instruments**	
		Participant observation (both descriptive and reflective notes)	**Interview protocol (for collecting student participants' voices)**
RQ 1	How does a course instructor design and teach a general education course at a community college in Hong Kong?	(For the 2012/13 academic year) Description of the evolution of my instructional design work and thinking for a general education course	
RQ2	How do community college students experience learning in such a course?	(For the 2013/14 academic year) Class B was selected as the case of interest My observations of students' interactions in practice and the student participants' written self-reflections on group projects College-wide teaching evaluations (Class B)	IP1: What are your overall feelings about learning in this general education course? IP2: Can you tell me which sessions of the course you find rewarding? IP3: Do you want to

			share any other learning experiences in this course?
RQ3	How do community college students evaluate their learning outcomes in such a course?	(For the 2013/14 academic year) My observations of students' interactions in practice and the student participants' written self-reflections on group projects College-wide teaching evaluations (Class B) Class A's teaching evaluation report during the 2012/13 academic year was used for comparison	IP4: Do you think you have achieved the learning outcomes of the course?

Participant observation and interviews are the research instruments best suited for collecting qualitative data. Creswell (2013) states that the advantage of participant observation is: "[t]he researcher is participating in the activity at the site. The participant role is more salient than the researcher role. This may help the researcher gain insider views and subjective data" (p. 167). Observing and participating are integral to understanding the breadth and complexities of students' interactions in practice. Interviews help the researcher collect data in a case study. They provide useful information when behaviour cannot be directly observed and permit participants to describe their feelings, define the world in a unique way and provide detailed personal information (Creswell, 2014; Merriam, 1988; Wragg, 2003; Yin, 2014). In addition, the interviewer has more control over the types of information received as he or she can ask specific questions (Merriam, 1988). In this study, an one-on-one interview approach involving open-ended questions was

applied. Creswell (2014) recommends to use an interview protocol that "contains instructions for the process of the interview, the questions to be asked, and space to take notes of responses from the interviewee" (p. 247) so that researchers develop means for recording information even when a detailed record of an interview is provided by using audiotape.

I designed the interview protocol, which contained the interview questions for the student participants, to collect the students' voices and perceptions of the teaching practice and learning experience in the general education course (Appendix 2). No particular sampling frame was used to examine the relationship between teaching and learning according to gender, age, family background, work experience or academic performance. This case study did not intend to make the findings representative of the same course conducted by other instructors or of other general education courses offered at the same community college or other community colleges in Hong Kong. At the interview site, I used the interview protocol to collect and record the interview data. First, the student participants were informed of the purpose of the study, the amount of time required for the interviews and how I planned to use the interview results. The participants were then asked for permission to audiotape the interview. After acquiring the permission of the student participants, I obtained their consent by inviting them to fill in consent forms (Appendix 3). The interview protocol contained the following four open-ended questions.

1). What are your overall feelings about learning in this general education course?

2). Can you tell me which sessions of the course you find rewarding?

3). Do you want to share any other learning experiences in this course?

4). Do you think you have achieved the learning outcomes of the course?

The participants were free to voice their experiences and feelings without being restrained by the research assumptions or perceptions of others. In terms of the recording procedures, an iPhone was used to audiotape the interviews. The acoustic effect was satisfactory, as the student study room at the research site was a quiet location free from distraction. Out of concern for security and confidentiality, the data were removed from the iPhone after they were saved to computer text files.

3.7 Data analysis procedures

Interpreting data involves moving past their abstract codes and themes to the larger meaning underneath. Creswell (2014) suggests the following:

> For a case study, analysis consists of making a detailed description of the case and its setting. If the case presents a chronology of events, I then recommend analysing the multiple sources of data to determine evidence for each step or phase in the evolution of the case. (p. 199)

Creswell's (2014) six steps of data analysis (Table 3.4) seem to comprise an effective way of making sense of the data collected from interviews and developing 'analytic generalisations' (Yin, 2014, p. 40) of what is learnt.

Table 3.4 Creswell's (2014) six steps of data analysis

	Step	Task
1.	Preparing and organising the data	Transcribe the audiotaped recordings and field notes into text data. Subject data to hand analysis. The researcher must read the data, mark it by hand and divide it into parts.
2.	Exploring and	Obtain a general sense of the data by reading the

	coding the database	transcripts several times and marking ideas and concepts. Divide the data into text segments, label the segments with codes, examine the codes for overlap and redundancies and collapse the codes into broad themes. Select specific data to use and disregard any other data that do not specifically provide evidence for the themes.
3.	Describing findings and forming themes	Give a detailed description of the case and divide codes into ordinary, unexpected, major and minor themes by eliminating redundancies. Layer the themes by subsuming the minor themes within the major themes and including the major themes within broader themes.
4.	Representing and reporting findings	After completing the preceding steps, display the findings in an organised way and construct a narrative to explain the findings. Include quotations from the interview data in the report.
5.	Interpreting the meaning of the findings	Compare and contrast personal reflections and views about the meaning of the data with the literature and review the major findings and how the research questions were answered to reveal the case study's larger meaning.
6.	Validating the accuracy of the findings	Use triangulation to interpret and determine the accuracy and credibility of the findings.

Adapted from Creswell (2014), pp. 260-288.

In this case study, the interviews were conducted in Cantonese, which was the native language of all six of the student participants, and the interview data were translated into English. The data were proofread twice, and I carried out initial data analysis by hand. I gave a code to each wording, such as critical thinking, innovative teaching materials, current issues, new knowledge, empowerment, change, discussion, real-life situations, online searching and solutions for problems. I then

divided these codes into six themes by eliminating redundancies. I checked the transcripts again to ensure that no new information had surfaced. Six major themes were identified and reached "saturation" (Creswell, 2014, p. 275).

CHAPTER FOUR: WING ON COMMUNITY COLLEGE AND THE GENERAL EDUCATION COURSE

Wing On Community College (pseudonym) has strived to promote innovative teaching and student-centred learning in general education since September 2013. The case of interest in this study was a general education course I taught entitled 'Culture and Society' (pseudonym). It was chosen to reflect the instructional design and teaching practices I applied in my classroom and to provide practical advice to community college faculties and administrators when implementing general education courses. This chapter outlines the institutional background of Wing On Community College and its view of general education. It also delineates the purpose of the general education programme at the community college. The final section depicts the development of the case and my exploration of instructional design and teaching practices based on the MI theoretical framework.

4.1 Institutional background

Wing On Community College (hereafter 'the College') is an accredited community college managed by the School of Continuing Education of its parent university (hereafter 'the University'), which is a fully-funded public tertiary institution. Since its establishment in 2000, the College has offered a two-year full-time associate degree programme comprising 38 units of general education courses and 24 units of discipline-specific courses provided by five academic divisions, including Applied Sciences, Arts and Language, Business, Communication and Social Sciences. In the 2014/15 academic year, the College is offering twelve self-funded bachelor's degree programmes in collaboration with four of the divisions, including Arts and Language, Business, Communication and Social Sciences, to

provide associate degree graduates with degree articulation opportunities. The College prepares students for the articulation required by bachelor's degree programmes. Therefore, the curriculum framework is modelled closely after the University's undergraduate curriculum, and students are taught by both College instructors and University lecturers in collaborative concentration studies. During the 2013/14 academic year, there were about 3,000 students enrolled in the associate degree programme. The number of graduates were around 1,000 in the 2012/13 academic year. About 60% of graduates continued their studies and enrolled in local degree programmes, while about 20% of graduates chose to work full time or part time (EDB, 2014). The College adopts the University's quality assurance mechanism. The Academic Consultation Panel recognised the quality of its education through two assessments in 2006 and in 2012 respectively. For external review, the University Grants Committee acclaimed the College in 2002. In 2008, the Joint Quality Review Committee, an independent corporate quality assurance body established by the Heads of Universities Committee in Hong Kong, acknowledged the education provided by the College.

The University is known for its mission of providing quality whole-person higher education with a Christian heritage. This background affects its view of general education. The distinctive feature of whole-person education is to nurture several particular attributes in students (Table 4.1).

Table 4.1 Graduate attributes as defined by the University

Domain	Attribute
1. Citizenship	Be a responsible citizen with an international outlook and a sense of ethics and civility.
2. Knowledge	Have up-to-date and in-depth knowledge of an academic

	specialty and a broad range of cultural and general knowledge.
3. Learning	Be an independent, lifelong learner with an open mind and an inquiring spirit.
4. Skills	Have the necessary information literacy, information technology, numerical and problem-solving skills to function effectively in both work and everyday life.
5. Creativity	Be able to think critically and creatively.
6. Communication	Have trilingual and bi-literate competence in English and Chinese and the ability to articulate ideas clearly and coherently.
7. Teamwork	Be ready to serve, lead and work with a team and pursue a healthy lifestyle.

Adapted from the University's website.

The whole-person philosophy focuses on helping students to learn broad-based knowledge and develop different cognitive abilities that can be applied to real-life situations. Students learn to master content knowledge and practise the abilities related to that content, such as by developing critical- and analytical-thinking skills, learning effective communication skills, expressing their understanding of content in writing and applying theories from disciplines to real-life situations. This focus guides the faculty's teaching approach to the general education programme, which also constitutes a broad base of general knowledge and provides a foundation on which students can develop their cognitive abilities.

4.2 Overview of the general education programme

In 2011, the Education Bureau clearly stated that the associate degree programmes should equip students with the broad-based knowledge and generic skills required for further study, as community college students were mostly

academically underprepared (EDB, 2011). The College must implement a general education programme that adheres to both the government's guidelines and the University's philosophy of whole-person education. The general education programme is made up of core requirements that teach transferable skills, attitudes, values and guiding principles to students. It includes courses related to the Chinese and English languages, information management, physical education, history and civilisation and the value and meaning of life. Distribution requirements expose students to disciplines outside their major areas of study and encourage them to build connections between the various disciplines. These general education courses are discipline-based. Students are required to enrol in four general education courses offered by other disciplines. In broad terms, students are expected to achieve a number of intended learning outcomes in the general education programme (Table 4.2). These outcomes are based on the philosophy of whole-person development.

Table 4.2 Intended learning outcomes of the general education programme (PILO) as defined by the University

PILO
1. Communicate effectively as speakers and writers in both English and Chinese.
2. Access and manage complex information and problems using technologically appropriate means.
3. Apply appropriate mathematical reasoning to address problems in everyday life.
4. Acquire an active and healthy lifestyle.
5. Use historical and cultural perspectives to gain insights into contemporary issues.
6. Apply various value systems to decision making in personal, professional and social/political situations.
7. Make connections between a variety of disciplines to gain insight into contemporary personal, professional and community situations.

Adapted from the University's website.

These learning outcomes are determined by observable skills such as communication, analysis, problem-solving, social interaction and aesthetic engagement skills; decision making and interdisciplinary perspectives. The intended learning outcomes of the general education programme correspond to the educational goals of whole-person education.

At the institutional level, the Programme Board is responsible for curriculum development and revision in addition to overseeing the quality of the programme. Each discipline is required to submit general education course proposals for validation and approval by the Programme Board. If approved, a proposal is turned into a programme document. Under the Programme Board, the Programme Management Committee aims to coordinate the day-to-day operations of the programme. According to the College's requirements, each instructor should submit a work scheme (a kind of teaching plan) during the first week of teaching. Four important items that appear on the programme document should be included in the work scheme: 1). course objectives, 2). learning outcomes, 3). learning and teaching activities and 4). assessment methods. Several instructors may deliver a course and teaching materials may vary widely. The principle to keep in mind while writing a teaching plan is that the four important items should not be changed or revised. At the course level, faculty members define their expectations of students within the guidelines of the programme document and have the autonomy to deliver the course in a variety of ways. With regard to teaching methods, the General Education Office of the University suggests that there are three 'Nos' in a general education classroom: 1). no silence – students are encouraged to participate in class activities; 2). no spoon feeding – to nurture critical thinking, creative thinking, interdisciplinary perspective and problem-solving skills in students; and 3). no memorisation – students are given ample opportunities to demonstrate their

knowledge and skills as they relate to the content area. In this sense, the College appreciates student-centred learning and innovative teaching practices. The faculty articulates its expectations of student learning and develops students' cognitive abilities through general education in a variety of ways. Each discipline division designs the content areas (English, Chinese, history, mathematics, psychology, sports, biology, film and TV, journalism, music, business, etc.) addressed in the general education courses to make these abilities teachable. There is no one set of criteria providing students with a tangible goal for learning general education at the College level. Rather, the faculties in each discipline division use the guidelines of their respective approved programme documents to shape learning outcomes and to design rubrics for classroom-based assessments.

4.3 Background of community college students

According to the statistics reported by Hong Kong Examinations and Assessment Authority (2013), the number of Hong Kong Diploma of Secondary Education Examination (DSE) candidates totalled 81,355 in 2013. Furthermore, 35% of the candidates satisfied the general entrance requirements for local five-year undergraduate programmes and 26% of the candidates obtained five subjects with level 2 (including Chinese and English languages), which are the minimum entrance requirements for sub-degree programmes. In the 2013/14 academic year, the number of approved student targets of the University Grants Committee-funded (UGC-funded) undergraduate programmes for first-year-first-degree places totalled 15,000, indicating that 18% of the best qualified DSE candidates were selected to enrol in UGC-funded undergraduate programmes (UGC, 2013). The remaining 17% of qualified candidates had to find places to get ahead of their studies. In the same academic year, community colleges were the primary destinations for

approximately 43% of DSE candidates who satisfied the minimum sub-degree programme entrance requirements (including four-year undergraduate programmes) to acquire the post-secondary credentials necessary to transfer to four-year universities.

Hong Kong community colleges are not open-access institutions and have minimum entrance requirements for admission. All of the associate degree programmes are full-time. As of the 2014/15 academic year, the tuition fees of associate degree programmes range from HK$48,000 to HK$75,000 per year (including high-value courses such as nursing and health care) (EDB, 2014). The costs of attaining a post-secondary education are on the rise. As such, "the Government policy on student finance is to ensure that no students are deprived of education due to lack of financial means" (Student Financial Assistance Agency [SFAA], 2015). Financial assistance is provided through three schemes to local students pursuing full-time, locally-accredited, self-financing sub-degree/degree programmes (SFAA, 2015): 1). Means-tested Financial Assistance Scheme for Post-secondary Students (FASP), 2). Non-means-tested Loan Scheme for Post-secondary Students (NLSPS) and 3). Student Travel Subsidy Scheme. As a result, an increasing number of students at community colleges are seeking financial aid to finance their education costs. According to the Education Bureau (2007), the maximum number of non-local students that could be admitted to full-time, locally-accredited, self-financing programmes at the sub-degree and degree levels in an institution is 10% of the local student enrolment at the institutional level.

Under these circumstances, it is no coincidence that community college students are mostly local secondary school leavers aged 16-20. In general, students perform weakly in the linguistic and logical spheres, and some seem unprepared to study in a community college.

4.4 Case study - The 'Culture and Society' general education course

I began to teach the 'Culture and Society' course with only rudimentary knowledge of general education and the pedagogy and conception of the curriculum. Although I had received no teachers' professional training, I had well-rounded and diverse work experiences that enabled me to adapt to new situations. The skills I acquired during my different life experiences were transferable and applicable to my teaching. My successful completion of a degree in Social Sciences with a major in History helped me to acquire a wide range of transferable skills such as logical thinking; analytical abilities; communication, research and teamwork skills; and flexible approaches to learning. I had sharpened these skills through my different life experiences. My interdisciplinary training background in Social Sciences gave me different career options. Before I started my career in education, I worked in the fields of mass media, civil services and higher education. I was previously a business newspaper journalist and reported mainly on legal topics and court and case news. I then worked as a research associate for a university to research housing reform in China. I also worked as an assistant curator and was fortunate to participate in organised public education programmes that allowed me to help visitors from all walks of life think more critically about and obtain inspiration from the past. In my last career, I held administrative posts in two higher education institutions, where I was responsible for establishing teaching centres in collaboration with partnering institutions in China. This work experience provided me with ample opportunities to gain and sharpen transferable skills, particularly communication and management skills. The nature of the job required me to travel frequently to China on business, which presented distinct challenges to my family. After six years, I decided to change careers and enrolled in the Doctor of Education programme at the Chinese University of Hong Kong to equip myself for a teaching

post at a tertiary institution. During the study period, I was very excited to teach at a vocational education institute. As it was my first teaching post, I felt fortunate to work with higher diploma students, who made me realise my passion for teaching. Then, I taught a general education course at the College. I found that I enjoyed furnishing students with attention, care and support, and hoped to take their learning forward with thought-provoking topics and prepare them for the transition into four-year universities. A pervasive use of technology is probably the most obvious characteristic exhibited by young people in the era of globalisation and on-line social networking. Teachers must know their students and their cultures well to teach them effectively. Teaching involves much more than simply executing lesson plans. I consider teaching a multifaceted profession in that teachers must also fulfil the roles of mentor and role model. This is my belief about teaching.

At the time of the case study, I had taught 'Culture and Society' for a year. Student feedback about my teaching practices collected from the teaching evaluation reports in the first semester of the 2012/13 academic year inspired me to look for what students needed from the course. To reflect on my teaching methods and obtain an in-depth understanding of general education teaching practices and student learning, I conducted the case study during the 2013/14 academic year. I reported my findings according to the three-path format delineated by Stake (1995). First, I described the development of the course. Second, I outlined the instructional design process. Finally, in Chapter Five, I examined how the students perceived their learning experiences and learning outcomes in the course.

4.4.1 The development of the course

How does a course instructor design and teach a general education course at a community college? This was the first question that came to my mind when I was

assigned to teach 'Culture and Society' which is a discipline-based course under the Division of Social Sciences. This course introduced students to the various social, economic and cultural facets of Asian societies located in the Asia-Pacific region. Current news and developments in the Asia-Pacific region were explored and analysed to stimulate and consolidate students' learning. The course had been offered every semester since September 2012 under the administration of the Division of Social Sciences. It was a semester-long discipline-based general education course involving three contact hours per week for thirteen weeks. It was an elective course designed mainly for non-Social Sciences majors with English as the medium of instruction. Each class consisted of no more than 32 students. The students enrolled in my course mostly majored in the film and TV, journalism, Chinese linguistics, hotel and tourism and business fields. To a certain extent, their study concentrations revealed their strengths and prior learning experiences.

In the first semester of the 2012/13 academic year, I taught 150 students across five classes. Given the time constraints and my lack of experience teaching in a community college, I felt compelled to expose the students to the largely unfamiliar concepts, ideas and theories central to sociology. Hence, I adopted traditional lecture-hall-style presentations that comprised lectures and discussions of the main ideas of the assigned readings. Sometimes I showed films or clips of TV dramas to arouse the students' interest in the class. However, I could tell that the students were bored and losing concentration. They became inactive in class discussions and remained silent for most of the sessions. Some of the students spent most of their time checking their iPhones. When participating in group project presentations and written reports, nearly half of the class used Wikipedia, yahooanswer.com and personal blogs as references despite being informed of appropriate research methods and reliable websites for information searches. The

students were obviously unmotivated. Near the end of the semester, many of the students asked whether there were any model answers for the questions. Rote learning seemed common among the community college students. What was wrong with my teaching practices? Should I have blamed the students for not taking the class seriously? In the first teaching evaluation reports, I received both compliments and criticisms from students that revealed the need for new teaching practices that accounted for the students' interests and needs. One of my classes (Class A) during the first semester of the 2012/13 academic year was selected at random for analysis. Table 4.3 shows the common comments in Class A's teaching evaluation report.

Table 4.3 Common comments in Class A's teaching evaluation report during the first semester of the 2012/13 academic year

Compliments	Criticisms
1. The lecturer encouraged us to think and voice our opinions.	1. The lecturer should have been more objective.
2. We learnt about the different social phenomena in Asian societies. We also learnt more about the different cultures of other countries in Asia, which reflected my interests.	2. The course was too simple. It should have included more sophisticated sociological knowledge and theories.
3. The teaching materials were clearly presented and the lecturer was well-prepared.	3. The notes were not specific. They were too messy and distributed over too many sections.
4. The lecturer cared about us and welcomed questions.	4. More breaks and rest time should have been offered because it was tiring to engage in critical thinking for 3 hours.

5. The teaching materials were clear and helped us make revisions after the lectures.	5. The notes were not useful for us to prepare for the examination.
6. The lecturer used many interesting multimedia elements and video clips.	6. The lessons were too boring.
7. The lecturer taught us about Japan and South Korea, topics that young people are interested in.	7. It was boring if students were not interested in the topics.

The students provided both positive and negative feedback about my teaching practices and the course content. This information inspired me to explore the instructional design of the course.

The next question involved how to make the learning outcomes teachable. The challenge was that the learning outcomes and assessment methods were structured according to the College's programme document. As such, I had to think about how the students could gain other types of knowledge (Box 4.1).

Box 4.1 Excerpt of 'Culture and Society' course outline – Outcome-based teaching and learning

Objectives:

This course introduces students to the various social, economic and cultural facets of Asian societies in the Pacific Rim. The countries covered in this course may include China, Hong Kong, Taiwan, Japan, South Korea, Singapore, Malaysia, Thailand, Indonesia, Vietnam and the Philippines. Current news and developments in the Asia-Pacific region are explored and analysed in the course to stimulate and consolidate students' learning.

Course Intended Learning Outcomes (CILOs):

By the end of the course, students should be able to:

CILO 1	describe current socio-cultural issues in neighbouring countries;

CILO 2	analyse the structure and roles of social and cultural institutions in Asian societies; and
CILO 3	explain and apply sociological concepts and principles when discussing particular social issues.

Learning and Teaching Activities (TLAs):

CILO 1	Lecture and class discussion. The lecturer will explain the current concepts and principles related to social issues in the Asia-Pacific region. Students will • complete worksheets about social issues and • have discussion in class and identify the region's political, economic, social and cultural diversity.
CILO 2	Group discussion and written assignment. The lecturer will describe the current issues related to Asian societies with the aid of video or movie clips. Students will • identify the issues presented in the video aids and discuss the effect of these issues on the society concerned in groups and • write assignments related to chosen topics.
CILO 3	Project and presentation. The lecturer will select some relevant films, books and articles for students to read or review. Students will • perform in-depth analysis of a chosen socio-cultural issue presented in the selected media/materials, • search for more information in the university library database and other sources to supplement their analysis and • present their research findings in class.

Encounter with Gardner's MI theory

During the exploration process, I found that incorporating MI theory as a curriculum framework into Integrated Thematic Instruction (Kovalik, 1994) could support the goals of general education. As Gardner (2011) mentions, MI are not the end but the means of learning. Students are not trained to learn the eight multiple

intelligences, but to be aware of the strengths that help them to achieve the learning outcomes of the course and enhance their self-confidence. It is ideal to help students explore their potential over the course of learning. General education provides students with broad-based knowledge and nurtures different cognitive skills in them. MI theory provided me with a framework for my instructional design and general education teaching practices. MI theory supports the goals of general education in four ways. It supports 1). broad-based knowledge and reality-based curriculum, 2). a pluralistic teaching approach through the use of multimedia sources, 3). the development of cognitive skills in students and 4). an open learning environment that provides students with choices to use their intelligences in practical ways.

1. Broad-based knowledge and reality-based curriculum

The goal of general education is to help students acquire usable broad-based knowledge and develop various cognitive skills (Cohen, 1988). As Lewis (2011) mentions, general education helps to "instil a sense of one's role in the world" (p. 9). Students should be able to establish relationships with their communities through general education. As such, true learning arises out of the experiences and interests of students. I selected a major theme for the course and a sub-theme for each unit, and used current news and contemporary cases to illustrate concepts and theories.

2. Multimedia sources as teaching materials

True learning can take place when motivation comes from within. As Gardner (2004, 2011) emphasises, multimedia resources found in real life can arouse students' interest and activate their instinct intelligence. The current community of college students grew up with technology and make frequent use of on-line social

networking. They are no doubt interested in multimedia. I adopted an inquiry approach to teach the sociological concepts during class activities. I began with a current issue by showing the students on-line news reports, clips of TV dramas and films, music videos, interviews with celebrities or government officials and popular YouTube videos. I then asked the students to respond to guiding questions and find the value in the information. I cold-called on the teams to report back their answers and introduced them to the related concepts. After a discussion, I asked the students to complete homework that would reinforce their understanding of the learning goals and concepts and their application.

3. Developing cognitive skills in students

Yeung et al. (2012) indicate that teachers must use specific teaching techniques to develop different levels of cognitive ability in students. In terms of my learning outcome expectations, the course had the objective of developing three cognitive abilities in students. How to make these teachable? Gardner (2009a, 2009b) advocates that the principal concepts in a discipline should be taught in multiple ways. Hunter and Robinson's (2012) team-based learning (TBL) provides instructors with a way to move beyond lectures and engage students in discussing and critically thinking about course materials. The authors suggest a variety of ways to engage students in team activities once the learning goals are confirmed. For example, students may be encouraged "to use original texts to solve problems, read and use charts and data, create research proposals or conduct research, and evaluate sources and apply course content to them" (p. 81). One of the challenges in designing the teaching and learning activities in my course was determining how to help the students understand sociology as a discipline, which involved more than common sense. Sociologists study society, and everything can be studied. Some

of the students considered studying needless because everything was common sense. Working in teams can inspire students to realise that the things happening around them were not always common sense and indeed required different parts of the society to connect and affect one another. Sociological concepts allow students to understand the world. Hunter and Robinson (2012) explain that instructors promote critical thinking in classrooms where an activity "consists of evaluating and making sense of a team's statements and provides students with clear feedback on how to evaluate cases from various angles" (p. 92). In such cases, the instructors in fact demonstrate critical thinking.

4. Empowering students to learn

As Quinones (2001) shares, the use of an MI framework can promote "a more democratic environment through increased power sharing among students and teacher" (p. 188). During my class, I allowed the students to use any examples to answer my questions if the examples made sense and were inoffensive. Sometimes I learnt from the students, who were more knowledgeable than I about topics such as popular culture in South Korea. For example, some of the students laughed when I introduced an example of Korean pop stars. I approached the group during a break, and discovered that they had laughed because the pop stars I mentioned were too old to them. I invited the group to talk about their favourite pop stars and why they liked them. Sometimes I asked the students to choose the teaching materials if they had any new ideas, and we discussed their choices during class. Quinones (2001) reveals that MI theory can alter the teacher-student relationship in the classroom and make it more democratic, forcing teachers to cede "a great deal of power over their learning to the students themselves, their own motivations, modalities, and interests" (p. 190). Furthermore, Kovalik (1994) accentuates that:

> choice opens doors to alternative ways of learning and expressing what is learned, to greater commitment to a task as personally meaningful, to higher motivation to persist on tasks, and many other pluses. In a word, choice in how students go about learning builds power into the curriculum. (p. xix)

To complete a group project, the students were allowed to choose the topics listed on the course outline with an option to create their own topics and they decided the ways to present their findings. Through group projects, the students were given opportunities to realise their own strengths and demonstrate their mastery of knowledge and practise their intelligences in multiple practical ways.

Getting to know my students

My general education course fulfilled the College's distribution requirements as an introductory Social Sciences course that advanced students' understanding of key concepts and helped them develop analytical, social interaction, problem-solving, effective communication and citizenship abilities. Students not enrolled in the Social Sciences discipline were eligible to register for the course. I administered a warm-up exercise during the first lecture to ensure that my teaching plan would engage the students' interest. Each student was given a worksheet to answer 16 MI-based questions adapted from Armstrong's (1999) MI inventory (Appendix 4). Table 4.4 presents the general background of Class B during the second semester of the 2013/14 academic year.

Table 4.4 General background of Class B during the second semester of the 2013/14 academic year (in numbers)

	Male	Female	Total
Gender	19	13	32

Average age	18	18	18
Qualification received:			
Hong Kong DSE	12	9	21
Hong Kong AL*	2	2	4
Mainland	4	2	6
Others	1	0	1
First language:			
Cantonese	17	9	26
Mandarin	2	4	6
English	0	0	0
Concentration:			
Film and TV	5	1	6
Journalism	5	4	9
Hotel and Tourism	2	3	5
Business	8	4	12

Note: *AL – Hong Kong Advanced Level Examination (HKALE), taken by senior students upon completion of two-year sixth-form education. HKALE qualifications had always served as entrance requirements for admission to local universities. With the implementation of the New Academic Structure in 2012, the final HKALE for school and private candidates were held in 2012 and 2013, respectively (Hong Kong Examinations and Assessment Authority, 2013).

The purpose of this exercise was to make the students aware of their interests and personal goals. Their answers helped me understand their preferences in addition to their English language abilities and allowed me to better prepare relevant teaching activities that correlated with their interests and strengths so as to activate their multiple intelligences.

4.4.2 The design of teaching plan

I adapted Armstrong's (2009) key MI planning questions (Table 2.2) and eight key teaching methods (Table 2.3) corresponding to each MI in the course design. Table 4.5 presents the general outline of the teaching and learning activities in the course as they correspond to each MI. The rationale for the teaching plan design

and the implementation of the course based on the MI framework are discussed in the following sections.

Table 4.5 General outline of teaching and learning activities in the course corresponding to eight MI

Multiple Intelligences	**MI planning questions**	**Teaching materials (seven entry points)**	**Learning activities**
Linguistic	Use spoken or written words?	Lectures, online news reports and documentaries, selected chapters of academic books and journal articles	Class discussions, written assignments and group projects (both oral presentations and written reports)
Logical-Mathematical	Bring in logic, classifications or critical-thinking skills?	Statistical data and survey reports conducted by the government departments or universities	Class discussions, written assignments and group projects (both oral presentations and written reports)
Spatial	Use visual aids, colour, art or metaphor?	Pictures, photos, clips of TV dramas and films, diagrams and mind maps	Group projects (both oral presentations and written reports)
Musical	Bring in music or a melodic framework?	Theme songs of TV dramas/films and YouTube videos	Group projects (both oral presentations and written reports)
Bodily-Kinesthetic	Involve the whole body or use hands-on experience?	Examples of awarded short films and songs produced by young Hong Kong people	Group projects (both oral presentations and written reports)
Interpersonal	Engage students in peer sharing, cooperative learning or	Class worksheets and work plans for group projects	Class discussions and group projects (both oral presentations and written reports)

	large-group simulations?		
Intrapersonal	Evoke personal feelings or memories of providing students with choices?	Class worksheets	Class discussions, written assignment and group projects (both oral presentations and self-reflections)
Naturalist	Incorporate ecological awareness?	On-line news reports and documentaries about the use of nuclear energy in Japan after the 3/11 earthquake in 2011	Class discussions and group projects

Defining educational goals

I began exploring the instructional design and planning to implement new teaching practices in the 2013/14 academic year. It was essential to define my expectations for the students within the structured outcome-based curriculum. In view of my instructional design, I found Reigeluth's (1999) taxonomies most useful for identifying the educational objectives for the cognitive aspect of the course. In addition, the curriculum objectives must be stated in behavioural terms, and learning outcomes must be determinable by "observable skills", "capabilities for action" and "activities to perform" (Yeung et al., 2012, p. 34). I defined the intended learning outcomes of the course in cognitive terms adapted from Reigeluth's (1999) taxonomies. The course required three levels of cognitive ability. The students had to be able to 1). describe current socio-cultural issues in neighbouring countries (memorise information), 2). analyse the structure and roles of the social and cultural institutions in Asian societies (understand relationships) and 3). explain and apply

sociological concepts and principles when discussing particular social issues (apply generic skills).

Defining pedagogical goals

Pluralisation and individuation are the two major educational principles underpinning MI theory. However, there is a gap between MI theory and classroom practice. How does a course instructor engage community college students with diverse interests and abilities to learn various skills through a general education course? I found that incorporating MI theory as an instructional framework into thematic instruction while emphasising a reality-based curriculum and assessment helped me teach general education course. The primary goal of Kovalik's (1994) Integrated Thematic Instruction (ITI) is to foster the complete and well-rounded development of children. The model supports Gardner's MI theory that humans across cultures use multiple intelligences to solve problems and create products. According to Kovalik and McGeehan (1999), "[t]he Integrated Thematic Instruction (ITI) model for curriculum and instruction reflects my optimistic belief that humans will use the strengths inherent in their diversity to discover and address common needs and goals" (p. 374). As Reigeluth (1999) comments, integrated thematic instruction provides teachers with methods to translate theory about the biology of learning into practice, including organising their instruction around themes that engage students to gain significant knowledge and problem-solving skills. Based on the seven entry points of MI theory and integrated thematic instruction, my course had the following three key pedagogical goals.

1). To select the theories and concepts crucial to the discipline and apply the theories or concepts into real-life situations that students may find particularly interesting

(Gardner, 2003, 2006a; Kovalik, 1994). The subject areas had to be based on real-life contexts rather than jump around from one topic to the next without connecting ideas or concepts. Otherwise, the students' ability to gain an in-depth understanding of the topic would have been restricted. With integrated thematic instruction, the students were given an opportunity to connect different topics within the subject area and learn about certain topics and concepts in depth (Kovalik, 1994, p. xix).

2). To present a wide range of multimedia resources beyond the required reading articles and books as teaching materials such as film clips, TV drama clips, music videos, animations, pictures, advertisements, news reports, documentaries and popular YouTube videos. Real-life examples were used to arouse the students' interest and activate their instinct intelligences to learn (Gardner, 2011).

3) To provide students with different assessment options to demonstrate their mastery of abstract conceptual knowledge through practice interactions and the application of relevant skills (Gardner, 2003, 2011). Through various class activities and group projects, the students were encouraged to learn about their strengths and weaknesses and obtain individual feedback.

Selecting a theme and defining learning goals

After the educational and pedagogical goals were defined, I had to confirm a theme for the course. As suggested by Kovalik and McGeehan (1999), meaningful content and an enriched environment are important for organising instruction around themes. "Meaningful content" refers to "selecting topics that interest students and have the power to help them understand and influence their world" (p. 381) and an

"enriched environment" means "providing a healthful, inviting, homey setting with many resources from which students can learn, with special emphasis on real places, people and objects" (p. 381). I began by identifying the important concepts in the discipline that could be applied to real-life situations. I selected two major themes in the discipline as the focus of the course: democratisation and cultural globalisation. Sub-themes connected to the major theme were required when selecting the topics for each area to involve all three Asian societies including Hong Kong, Japan and South Korea. These sub-themes included 1). political development after the Second World War, 2). popular culture and 3). social change. Under these three sub-themes, I looked for reality-based cases, taken mostly from current news or contemporary cases, to illustrate basic sociological concepts such as socialisation, stratification, social institutions and social group. Through class activities and group projects, the students discovered values in cases such as equality, anti-discrimination, traditional and socio-cultural values. The students realised that their discoveries were connected to the major themes of democratisation and cultural globalisation, which influenced everyone in the world. A new teaching plan was implemented during the 2013/14 academic year (Boxes 4.2-4.3).

Box 4.2 Excerpt of 'Culture and Society' course outline – Course description

Course Description:

The course is composed of **11 lectures and 2 sessions of group project oral presentations**. A **thematic approach** is adopted. Students study a wide range of relevant topics related to politics, economic growth, history and social and cultural issues. Particular attention is given to the major socio-cultural issues currently facing Hong Kong, Japan and South Korea. The following common themes are highlighted throughout the course.

1. Historical Foundation

The post-war period (since 1945) and its effects on political and economic

development in the region.

2. Society

- Demographic changes.
- Transformation of the family system.
- Competitive educational system and the lingering socio-psychological consequences on youth and adults in terms of their values, attitudes and behaviour.
- Changes in women's status and conditions in relation to education, work and family.
- Environmental awareness and protection.

3. Culture

- Spread of national and transnational trends in popular culture.
- Mass media and everyday life.

Main Text:

Collinwood, D. (2010). *Japan and the Pacific Rim* (10th edition). New York: McGraw-Hill.

*** Required reading – for obtaining basic concepts.*

Without mark – useful references for writing essays and doing projects.

Websites: http://rthk.hk/rthk/news/englishnews/index_news.htm
http://english.chosun.com/
http://www3.nhk.or.jp/nhkworld/
http://www.bbc.co.uk/news/world/asia/

Box 4.3: Excerpt of 'Culture and Society' course outline – Teaching plan

Teaching Plan			
Week	Topic	Content	Assignments/ Class Activities
1	Course introduction	Course objectives and schedule; overview of the research approach of the Social Sciences; introduction to the Asia-Pacific region since 1945; two main themes: democratisation and cultural globalisation.	Optical illusion games *Homework*

2	Hong Kong society (I)	From colonisation to post-colonisation – the changes after 1997.	Worksheet, video show and group discussion *Homework*
3	Hong Kong society (II)	Chinese, Hongkonger or Hong Kong Chinese – what is identity?	Worksheet, video show and group discussion *Homework*
4	Hong Kong society (III)	The transnational popular culture of Hong Kong – examples of Hong Kong popular culture.	Worksheet, video show and group discussion *Homework*
5	Japanese society (I)	Restructuring the state after World War II – A copy of the American system?	Worksheet, video show and group discussion
6	Japanese society (II)	Contribution to media globalisation – a cultural imperialism?	Worksheet, video show and group discussion
7	Japanese society (III)	The sorry state of Japan's education – the emergence of new social groups.	Worksheet, video show and group discussion *Submit a review paper*
8	South Korean society (I)	Road to democracy – social movements.	Worksheet, video show and group discussion
9	South Korean society (II)	The Korean 'miracle' – from poverty to prosperity.	Worksheet, video show and group discussion

10	Group project presentations	Groups 1-3	
11	Group project presentations	Groups 4-6	*Groups 1-3 submit written report*
12	South Korean society (III)	The 'Korean Wave' – the effects of Korean popular culture on Hong Kong society.	*Groups 4-6 submit written report*
13	Concluding remarks	Hong Kong, Japan and South Korea in the Asia-Pacific region - an international perspective.	Worksheet, video show and group discussion

At the course level, I defined student learning goals in three aspects. By the end of the course, the students were able to 1). give details of appropriate background information and sociological theories, 2). synthesise disparate information and evaluate it to articulate their understanding of the subject matter and 3). apply the course content in a real-life context. In this case, I adopted a continuous assessment approach as required by the College and created learning activities including class worksheets for students working in pairs or groups, participation in class discussions, homework and group projects. Preparing the course and creating activities became easier once student learning goals were confirmed, as the activities were designed in a context.

4.4.3 The implementation of teaching plan

Gardner (2006a, 2011) states that some students learn better through stories, pictures or music, and that teachers can use these different entry points in their lessons. In doing so, students' distinct intelligences are activated, and the lessons may awaken the joy they find in learning and fuel their persistence in mastering

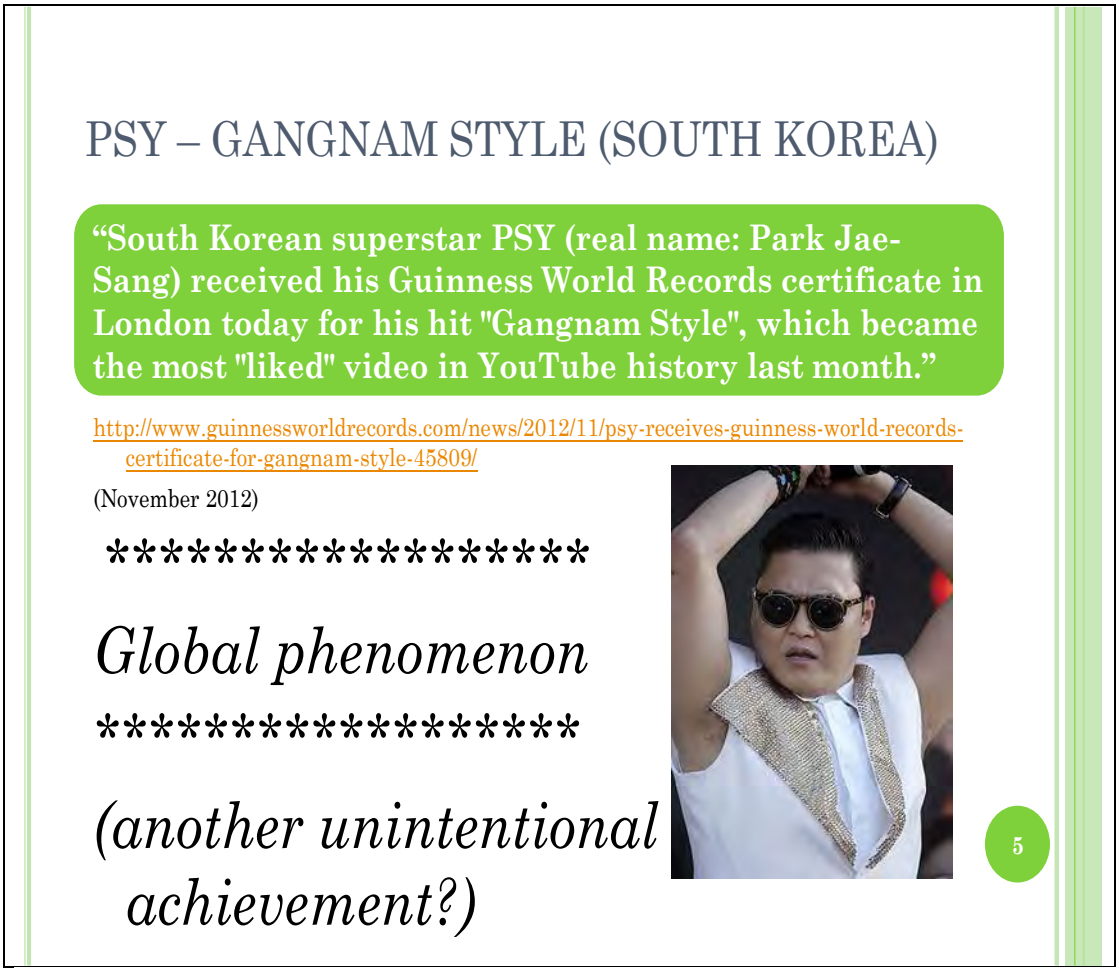
skills, learning information and being inventive (Armstrong, 2009). I used the seven entry points of MI theory (Table 4.5) in teaching and learning activities to engage students with diverse intelligences in the learning process. During the class, I adopted an inquiry approach by posing a thought-provoking and open-ended question to guide the students in their studies. I also used multimedia sources to teach principle concepts. For example, when I taught the sociological concept of 'identity', I used songs created by indie bands, short films produced by young Hong Kong people, local TV dramas and film clips to illustrate the importance of 'identity' in society and reveal how one's social identity was constructed.

Class activities – The seven entry points of MI theory and multimedia resources

One of the pedagogical goals of the course was to ensure that the students learnt to evaluate sources and apply concepts to real-life situations. I tried to create a lively and democratic learning environment and always emphasised that there were no right or wrong answers. However, the students were taught to provide answers that were supported by evidence from their readings. They were also taught that although there could be different viewpoints on a topic, some answers were more relevant or better supported than others given a context and evidence from the discipline. This forced the students to examine the potential choices in a larger context and become critical thinkers. When planning the learning activities, I identified the intelligences that seemed most appropriate for the content. I did not rigidly engage all eight intelligences in one class activity. For example, I taught the students about the role of mass media in society. In the era of globalisation, many would consider it impossible to live without mass media, particularly the young generation who grew up with technology and make frequent use of on-line social networking. At the beginning of the class, I asked the students questions such as

whether they could name an example of mass media in society and whether we could live without it. In seeking their answers, I showed them a music video by famous K-pop star PSY on YouTube (Figure 4.1). This was one of the ways in which I applied the seven entry points of MI theory to my classroom. I taught the students about the role of mass media musically through the global sensation of Korean Wave.

Figure 4.1 Example of class activity (teach the topic through music)



The class activities were initiated within one class period. After they watched the video, I gave the students 15 minutes to think about questions and cold-called on a team to share their views about the global sensation of Korean Wave. I guided

them to think about how this issue related to the concept of cultural globalisation and how it affected the social interactions and institutions in neighbouring societies.

Another example involved teaching through pictures (Figure 4.2). Tensions between Hong Kong people and mainland visitors were escalating. This was a real social issue that affected everyone living in Hong Kong. Many news reports had focused on the issue. I believed that using pictures to illustrate the issue could provoke the students to think and allow them to find the relationships between different social groups in a society. Each picture could be connected to the sociological concepts of socialisation and stratification so that the students could explain the complexity of each issue illustrated by a picture through the application of the concepts.

Figure 4.2 Example of class activity (teach the topic through pictures)

Most of the students were majoring in the field of film and TV and loved

watching films. During one class activity, I asked the students to respond to a film about the cross-border relationship between Hong Kong and Beijing and to share their views about the kinds of values revealed in the film (Figure 4.3). By working through this class activity, the students discovered the value associated with family and identity.

Figure 4.3 Example of class activity (teach the topic through film)

Group project – Conducting research

One of the learning goals of the course was to enhance the students' higher-order thinking through group projects. Conducting research can promote self-directed learning, as students learn to ask questions, synthesise and evaluate various types of information, apply concepts, cooperate with one another, create timelines and bring closure to a learning activity. I let my students choose their research topics (Box 4.4) and design their projects, and they created important knowledge by completing those projects. Designing the research topics engaged

the eight intelligences. The students were given ample opportunities to use their intelligences in practical ways. For example, the students who were spatially intelligent might have chosen topic 6 and learnt to understand society through the lens of films. The students might have gone further to create important knowledge after completing their projects. If they had the capacity to understand and interact effectively with others, they might have chosen topic 1, which required interpersonal and bodily-kinesthetic intelligences. Furthermore, the students might have realised their strengths and weaknesses through group projects or felt the need to gain the capacity they lacked. To teach the students necessary research skills, I assigned each group to prepare for a work plan that served as project guidelines to learn how to conduct research (Box 4.5). They were expected to start working on their projects in week five, and the projects typically took five to six weeks to complete. Because most of the students were academically underprepared, they required a lot of guidance to finish their projects. As such, they were required to complete written assignments (Box 4.6) before initiating their projects. By working through these written assignments, the students were expected to learn how to evaluate information and solve problems.

Box 4.4 Group project research topics

Research Topics

1. Interview 10 young people born in the 1980s or 1990s. Ask them about their views about inequality in Hong Kong and the factors that affect their intention to take part in social movements.

2. Interview 15 women. Ask them about their impressions of their own appearances and the factors that affect their intention to seek cosmetic surgery.

3. Select one Asian society. Discuss the impact of globalisation on any socio-cultural issue in that society.

4. Select one Asian society. Discuss the current environmental issues in that society.

5. Select one Asian society. Discuss the relationship between the mass media and everyday life in that society.

6. Choose one movie/melodrama that reflects the socio-cultural issues in Hong Kong. Discuss how the movie is relevant to real life.

The written report should include the following sections:

a. Title and names of group members
b. Purpose of the project
c. Research questions
d. Research plan and methods
e. Research findings
f. Data analysis
g. Limitations of the study
h. Any ethical issues (if any)
i. Conclusion and recommendations
j. References
k. Individual self-reflection (what did you learn from doing this project?)

Box 4.5 Group project work plan

Attachment - Work Plan

Group Members (Full Names):

Title:

Purpose of the Project:

Research Questions:

1. _____
2. _____
3. _____

Research Method:

_____

Work Stages (in Bullet Form):

Task	**Timelines**	**Members**
e.g., First meeting (define the purpose of the project, research method design, task allocation) 1.	**e.g., Weeks 5-6**	
e.g., Second meeting (progress report, confirm survey questions, contact interviewees, collect data, library research, summary of relevant information) 1.	**e.g., Weeks 7-9**	
e.g., Third meeting (progress report, data analysis, draft report, discussion, PowerPoint preparation, rehearsal) 1.	**e.g., Week 10**	

Box 4.6 Excerpt of guidelines for writing a review paper

1. You are required to submit **one English essay 1,500-2,000 words in length**.

2. The following **10 questions will guide your reading and help you critically review** the article.

2.1 What is the purpose of the article?
2.2 What is the author's argument?
2.3 Is there any evidence to support his or her argument?
2.4 What research method does the author use? (e.g., survey, interview, documents, observation, participation, secondary analysis, etc.)
2.5 What are the author's research findings?
2.6 Is the source of information (e.g., views of other authors, statistical data, examples) indicated in the article?
2.7 Do you think the findings support the author's conclusion?
2.8 What is good/bad about the article? (Conflicting ideas? Good ideas supported by relevant evidence?)
2.9 Can you suggest further research questions for the topic?
2.10 If the article is about concepts and theories, can you apply it to any examples in Hong Kong, Japan or South Korea?

Assessment methods

To ensure quality assurance in the sub-degree sector, the Education Bureau et al. (2009) advises institutions to apply outcome-based approaches in their teaching practices and student learning. This can lead to an increasing diversity of assessment tasks. Continuous assessment method provides students with opportunities to demonstrate their mastery of a range of intended learning outcomes and receive structured feedback related to their achievements to enable continuous improvement. As such, my course was designed according to an 'outcome-based teaching and learning' (OBTL) approach adopted by the College. The aims of a general education curriculum adhere to the philosophy of the general education programme of the parent university. Students' classroom-based performance is

assessed according to a rubric for individual activity (Appendix 5). Box 4.7 presents the assessment methods applied in my course.

Box 4.7 Excerpt of the 'Culture and Society' course outline – Continuous assessment methods

Type of Assessment Method	**Weighting (Total 100%)**	**CILOs to be Addressed**	**Description of Assessment Tasks**
1. <u>Coursework</u>	60%		
1.1 Written assignment **(20%)**		CILOs 1, 2	Worksheet, class discussion and written assignments are given to students to assess their ability to explain and analyse current sociocultural issues.
1.2 Project **(40%)** - Oral and PowerPoint presentations *(15%)* - Written report *(20%)* - Peer review *(5%)*		CILOs 2,3	A 30-minute presentation about a selected topic analysing a particular socio-cultural issue, followed by a written report.
2. <u>Examination</u>	40%	CILOs 1-3	An examination testing the students' ability to analyse current sociocultural issues in different Asian cultural institutions.

CHAPTER FIVE: COLLEGE STUDENTS' EXPERIENCES WITH THE COURSE

This chapter discusses the students' evaluations of their learning experiences in the course. I compared the results of a college-wide teaching evaluation survey of Class A during the 2012/13 academic year to those of Class B during the 2013/14 academic year to examine the students' learning experiences in the course. The survey data explicitly indicated that the students of Class B rated their learning outcomes in an MI-inspired general education course higher, and particularly the course assessment methods that allowed them to evaluate their learning experiences. The key MI dimension in student learning is that students are empowered to learn and demonstrate their intelligences in a variety of ways. The MI-inspired general education course was different from traditional classroom learning. I collected the students' perceptions of their learning experiences in the course by conducting one-on-one interviews. The interview data revealed that the students' learning experiences included making connections to lived experience; applying the course content; learning to synthesise information, find relationships, think critically and solve problems; and creating knowledge through group projects. The students' learning experiences apparently corresponded to four pedagogical dimensions of MI theory: designing broad-based knowledge and reality-based curriculum, using multimedia resources as teaching materials, developing students' cognitive skills and empowering students to learn. Furthermore, the students' learning experiences clearly illustrated that they accomplished three levels of cognitive ability that reflected their learning outcomes in behavioural terms, including the abilities to memorise information, understand relationships and apply generic skills. I further examined the MI model of learning experience generated from the interview data

according to my observations of the students' interactions in practice in addition to student participants' written self-reflections on group projects.

5.1 College-wide teaching evaluation survey results

At the end of the course, the students were required to complete a college-wide teaching evaluation survey. Although the survey aimed to collect the students' opinions about the course in general, the information data provided me with insights into my general education teaching practices and students' learning experiences. In the survey form, six out of ten questions were identified in relation to the pedagogical dimensions of MI theory. Compared with the results of the teaching evaluations of Class A received during the first semester of the 2012/13 academic year, the students of Class B gave higher ratings to their learning experiences in an MI-inspired general education course implemented during the second semester of the 2013/14 academic year. Table 5.1 reveals the students' responses to the course as they relate to the pedagogical dimensions of MI.

Table 5.1 Students' responses to the course as they relate to the pedagogical dimensions of MI

Questions	MI dimensions	First semester, 2012/13 (N = 30)	Second semester, 2013/14 (N = 29)
		SA & A* (%)	SA & A (%)
Q1. The lecturer showed thorough/in-depth knowledge of the course.	Broad-based knowledge and reality-based curriculum	80	80
Q2. The lecturer enhanced positive student learning.	Empowering students to learn	77	73

Q3. The lecturer stimulated students' interest in the course.	Using multimedia resources as teaching materials	53	76
Q4. The lecturer stimulated students to think critically.	Developing students' cognitive skills	80	86
Q5. The lecturer encouraged students to be independent learners.	Empowering students to learn	77	86
Q6. The assessment methods (e.g., tests/projects/term papers) effectively evaluated my learning experience in this course.	Empowering students to learn	43	66

Note: *SA – strongly agree; A – agree.

Amongst the six questions, the students' rating of Question 6, 'The assessment methods (e.g., tests/projects/term papers) effectively evaluated my learning experience in this course', increased significantly from 43% in 2012/13 to 66% in 2013/14. This reflects that the assessment methods provided students with more opportunities to demonstrate their mastery of knowledge and to practise their skills in different ways that reflected their multiple intelligences. In the 2013/14 academic year, I took a pedagogical initiative by applying MI theory to my instructional design and drew on integrated thematic instruction and team-based learning in my teaching methods. The students were empowered to learn, and the group project design engaged multiple intelligences as much as possible so that the students with diverse intelligences could participate in their projects and make contributions. The survey data noticeably indicated that the percentage of students' positive responses to Q3, Q5 and Q6 during the 2013/14 academic year increased significantly compared with

that during the 2012/13 academic year. In view of the written comments on the teaching evaluations, Table 5.2 presents some positive views of the MI dimensions in the course implemented during the second semester of the 2013/14 academic year.

Table 5.2 Positive written comments related to the MI dimensions in the course (Class B, second semester of the 2013/14 academic year)

MI dimension	Positive written comment
1. Broad-based knowledge and reality-based curriculum	I gained knowledge about sociology and some historical information about Hong Kong, Korea and Japan.
2. Using multimedia resources as teaching materials	It was interesting to learn sociological concepts by watching videos.
3. Developing students' cognitive skills	The course provided us with chances to know more about society and develop critical-thinking skills, as we needed to investigate different issues in the class.
4. Empowering students to learn	The lecturer was really nice and encouraged us to express ourselves more and adopt different perspectives.

Although the college-wide teaching evaluation survey was not designed to assess students' teaching and learning experiences in a general education course, the survey data implied that the students might have learnt better in the MI-inspired general education course. Given its reality-based curriculum, use of multimedia sources as teaching materials, open learning environment and different assessment methods, such a course would have provided the students with ample opportunities to use their intelligences in practical ways.

5.2 MI model of learning experience in general education

Apart from these quantitative data, I conducted interviews with the aim to gain an in-depth understanding of the students' perceptions of their learning experiences in the course and to determine whether community college students achieved the learning outcomes. Six students participated in hour-long in-depth interviews comprising open-ended questions. Based on the collected interview data, six major themes of learning experiences in general education were identified in relation to four dimensions of MI theory: D1). teaching crucial concepts in the discipline through reality-based curriculum, D2). teaching in a variety of ways using multimedia resources, D3). teaching students cognitive skills that allow them to learn how to learn and D4). providing students with choices that allow them to use their intelligences in practical ways. According to these four dimensions, I categorised the interview data into six themes: T1). making connections to lived experience, T2). applying the course content to real-life situations, T3). learning to synthesise information and find relationships, T4). learning to think critically, T5). learning to solve problems and T6). creating knowledge through group projects. The interview data showed that the students were able to learn three levels of cognitive ability through self-evaluation. The learning outcomes included the abilities to L1). describe current socio-cultural issues in neighbouring countries (memorise information), L2). analyse the structure and roles of the social and cultural institutions in Asian societies (understand relationships) and L3). explain and apply sociological concepts and principles when discussing particular social issues (apply generic skills). The students' qualitative comments on their learning experiences confirmed my belief that my pedagogical initiative to incorporate MI theory into integrated thematic instruction may be well-suited to academically underprepared students. Tables 5.3 - 5.5 summarised the interview data concerning students' learning experiences corresponding to MI dimensions in pedagogy and learning

outcomes. The MI model of learning experience reflected that the six student participants acquired three levels of cognitive ability throughout the course. The interview data reflecting the students' learning experiences as they relate to the pedagogical MI dimensions were examined through my observations of the students' interactions in practice during the class activities and group projects in addition to the students' written self-reflections.

5.2.1 Level 1 – Memorising information

Table 5.3 Interview data reflecting the students' learning experiences as they relate to the pedagogical MI dimensions and learning outcomes (Level 1)

Pedagogical MI dimensions	**Students' perceptions of their learning experiences**	**Learning outcomes**
D1). Teaching crucial concepts in the discipline through reality-based curriculum D2). Teaching in a variety of ways using multimedia resources	T1). Making connections to lived experience T2). Applying the course content to real-life situations	L1). Describe current socio-cultural issues in neighbouring countries (memorise information)

Making connections to lived experience (T1) and applying the course content to real-life situations (T2)

Reality-based curriculum could enhance students' interest by allowing them to find topics in daily life. Hence, I referred to current news and contemporary cases for each topic to illustrate important concepts. When the students acquired the basic course content information, they were expected to apply it to society and achieve an understanding of society that would serve as a foundation for their

life-long learning. I translated Gardner's (2004) seven entry point into the use of multimedia sources as teaching materials (Diagram 6.1). The students' types of intelligence did not matter, as the multimedia resources drew on multiple intelligences. Most of the students were weak in the linguistic sphere and not well-prepared for college study. In the era of on-line social networking, the students comprised a new generation who had grown up with technology and were familiar with multimedia techniques. I used multimedia resources in every lecture to either introduce or illustrate important concepts. These resources included documentaries, statistics, films, TV dramas, music videos, news stories, celebrity interviews, pictures and others (Table 4.5). I used multimedia resources to activate the students' distinct intelligences and provide them with opportunities to practise those intelligences in practical ways and create important knowledge. Memorising information was the first level of cognitive ability required by the course. I thought that most young people liked Korean popular culture and that focusing on South Korea might arouse the students' interest in learning and help them memorise the crucial concepts in a discipline easily. According to my observational and reflective notes, I realised that the students showed their interests in learning new concepts through films.

When I explained the concept of cultural globalisation in a lecture on 17 March 2014 (Box 4.3), I used a news story relating to the hardship of K-pop stars' training to illustrate the stratified society of South Korea. I talked about Korea's cultural construction through history and showed the students a film entitled 'Splendid Holiday'. The film depicted the 1980 Gwangju Massacre, during which the government repressed protestors who asked for democracy. During the class discussion, I asked the students opinion questions and required them to share their feelings and opinions. Some of the students shared that learning history through

film made it more thought provoking and easier to understand. Although they perceived the film to contain a lot of material that was fictionalised for dramatic effect, some said that they were impressed by the story, and some said it inspired them to consult a history book. Before viewing the film, most of the students said that they were not interested in Korea's history and thought that the film would be boring. During the film show, I observed that the students were impressed by the democratisation of South Korean society. No one was talking and everyone concentrated on watching the film. During the class discussion, some students asked whether the democratisation accounted for the rise of the Korean Wave. One student shared that although she was a fan of a Korean boy group known as Big Bang, she had never before considered the history of Korea. She liked the group simply because she found Korean boys handsome. After learning about the history of Korea, she said that she wanted to know more about Korean culture and even to learn the Korean language. The lecture engaged students to learn about different ways of seeing the world in the era of globalisation that allowed them to better understand their own society. This was the purpose of culture learning. The students' motivation to learn was enhanced once they made connections to lived experience.

During the interviews, I asked the student participants to share their learning experiences in the course. Sun said that although he was not interested in the Korean Wave before taking the course, it provided him with a method for learning about the concept of cultural globalisation. It influenced him to begin thinking about the influence of soft power in the world and made him eager to pursue in-depth knowledge related to the topic:

I was not interested in Korean pop culture. Taking this course, I became interested in the topic of soft power by studying the Korean Wave. Young Hong Kong people do not understand a word of Korean. Why are they so crazy for it? I want to find out the reasons.

Nam said that he was able to apply the course content to his real-life experience. He was invited to participate in a protest a few weeks before the interview. Before making his decision, he recalled the concept of social movement he had learnt about in the course and thought about the purpose of the protest and the identities of the organisers. Nam realised that he wanted to ask questions before taking part in any movement:

After taking this course, I learnt to pay attention to the issues in real life. For example, I received an e-mail invitation to participate in a demonstration. I remembered learning about the meaning of social movements in the course. What was the purpose of the social movement? I would never have thought about this before and would have gone to the protest because of peer pressure. Now I will ask questions.

Hing, another student participant, always visited social networking websites and discussed different issues in on-line forums. The use of Cantonese was a popular topic in such forums around the time of her interview. She said that she learnt to discuss issues by using different perspectives. She even applied the concept of cultural identity to make sense of the occurrences in Hong Kong and offer suggestions. She also realised her role in real-life situations:

I can understand social issues by looking at the cultural perspective. The recent hot topic is the use of Cantonese. There are many discussions about it on Golden Forum and among our classmates. Different perspectives! But I adopt the perspective of identity to talk about it. I have a strong sense of belonging in Hong Kong and of course I will not give up using Cantonese, my native language. I have a relative on the mainland and I highly recommend that she let her children learn Cantonese.

As Gardner (2011) always mentions, "[w]hen one has a thorough understanding of a topic, one can typically think of it in several ways, thereby making use of one's multiple intelligences" (p. 6). A reality-based curriculum provided the students with ample opportunities to learn by using their intelligences in practical ways. They became interested in learning when they found that they could connect the topics to lived experience (Kovalik, 1994, p.xx).

5.2.2 Level 2 – Understanding relationships

Table 5.4 Interview data reflecting the students' learning experiences as they relate to the pedagogical MI dimensions and learning outcomes (Level 2)

Pedagogical MI dimensions	**Students' perceptions of their learning experiences**	**Learning outcomes**
D3). Teaching students cognitive skills that allow them to learn how to learn.	T3). Learning to synthesise information and find relationships T4). Learning to think critically T5). Learning to solve problems	L2). Analyse the structure and roles of the social and cultural institutions in Asian societies (understand relationships)

Learning to synthesise information and find relationships (T3), learning to think

critically (T4) and learning to solve problems (T5)

Each topic accompanied a reading or an on-line documentary that the students were required to read or watch before class. Most of the students failed to do so due to their weakness in English. Sometimes they would simply declare it 'uninteresting'. I realised that the phrase 'of interest' referred to materials the students found useful. When they knew the information contained in a required reading would be included in an examination, they did not ignore my instructions. In this case, I considered ways to enhance their motivation to learn. Without sufficient information serving as a context or an analytical foundation, the effectiveness of my teaching practices and student learning would have been undermined. As such, I provided the students with some background information before engaging in class activities.

For example, a lecture conducted on 17 February 2014 focused on the changes that occurred in Hong Kong after 1997 (Box 4.3). I uploaded an on-line documentary on Moodle a week before class and asked the students to watch it at home. The documentary offered both Chinese and English subtitles. I provided guiding questions to help the students follow the logic and argument of the documentary. During class activities, the students were required to respond to a documentary about local residents in Sheung Shui who protested against an influx of mainland visitors and complained about an ineffective government policy that failed to address the problem of bootleggers. The students discussed the value associated with the interests of different social groups and the social function of the government in society. They worked in pairs and were given a few guiding questions to prepare them before watching the documentary. I then invited the students to share their views on the policy of the Individual Visit Scheme in Hong Kong. I asked them questions to determine their opinions. The following presents an extract of my

observational notes taken during a class discussion held on 17 February 2014:

Student A: *I do not think it is a problem. More mainland visitors coming to Hong Kong could create more jobs. They spend money to buy things. It is good for Hong Kong's economy. Why not?*

Student B: *They come to Hong Kong to buy not only luxury goods but also daily necessities like milk powder, shampoo and even soya sauce. The rate of inflation in Hong Kong is very high because of them.*

Student C: *They are not taxpayers. They come here to compete for Hong Kong's limited resources like schools, hospitals and even seats on the MTR. But our government relies only on the Chinese government and rich men.*

Student D: *Mainland visitors are not civilised. They hit people, spit, litter and even urinate on the streets. Hong Kong people do not do that.*

Student E: *I think it is because they have a different culture. They have a different social environment and are not as educated as we are in Hong Kong. I learn to line up for the toilet when I was a kindergarten student.*

Student F: *I do not care whether they are Chinese or Hongkongers. If they violate the regulations, they are not welcomed. Some Hongkongers litter as well. It's not just mainland visitors.*

Student G: *Although I come from the mainland, I think some visitors really make people annoyed. Like the residents in Sheung Shui. I did not know how bootleggers were affecting their living environment before watching this documentary.*

Student H: *I think the government should limit the number of visitors entering Hong Kong. We have enough. My father runs a restaurant in Sheung Shui and I see how the mainland visitors have disturbed our lives by speaking very loudly and impolitely and even using violence.*

Student I: *Why not separate the shopping areas? Build duty-free outlets or shopping malls in Northern New Territories and they will not go downtown.*

The preceding comments reveal that the students were trying to synthesise the information and find relationships. Students A, B, C and D were able to describe the effects of mainland visitors' behaviour in Hong Kong. Their knowledge might have come from personal experiences or news reports. Student E shifted the focus of the discussion to the factors that contributed to the cultural difference. This student was trying to make sense of the phenomenon and evaluate different sources of information. Students F and G expressed personal feelings. Students H and I tried to suggest solutions. They did not take the issue personally, but discussed it in a broader context as a social problem that should be handled by the government. These students were active learners and willing to participate in class discussions. The policy of the Individual Visit Scheme was a hot topic and the news reports on this issue were omnipresent. I thought students must have been exposed to the topic to a certain extent even if they were not enthusiastic about the news. However, half

of the class remained silent and did not seem interested in the discussion despite being allowed to use their native language to articulate their ideas. I did not immediately provide feedback after hearing their opinions. I asked the students to tally the number of social groups involved in the issue and to define the role of the government. I then introduced them to the concept of social institutions and their sociological functions in society. I explained that society was constructed by different social groups that had close relationships from the individual to international levels. I attempted to guide the students to analyse the issue by evaluating the standpoints of news reports, views of the government, attitudes of businessmen and interests of Hong Kong residents to help them reach their own conclusions. The class then came to an end.

Hunter and Michaelsen (2012) assert that "class discussion consists of evaluating and making sense of teams' statements and provides students with clear feedback on how to evaluate cases from various angles" (p. 92). To these ends, I might have needed to refine the discussion format to draw on multiple intelligences. The students should have been given more opportunities to use their strengths to learn. For instance, role-playing might have been a useful teaching tool to help students act out rather than talk. In this sense, I will consider to include role-playing in class activities when designing my new teaching plan.

During the interviews, I asked the student participants to share their learning experiences. Most of the students were aware of the reliability of on-line information and evaluated the information presented before using it. In addition, reality-based cases enhanced the students' motivation to learn critical-thinking and problem-solving skills. Bun shared that he learnt to find relationships between different social institutions in a society. He used the Individual Visit Scheme in Hong Kong as an example:

I like the mind map, which has a lot of pictures relating to the social problems associated with the Individual Visit Scheme. It is very useful. Before that, I felt that milk powder, mainland visitors, high housing prices and food safety problems were separate issues. When doing the exercise in the class, I learnt to find relationships between information. Society is interconnected.

In addition, most of the student participants clearly stated that the class taught them to think critically. According to Sweet and Michaelsen (2012), the four-part framework of critical thinking includes "motivation, specific thinking skills, the ability to transfer those skills, and habits of reflection to keep the process in constant evolution" (p. 9). Bean described his critical thinking as follows:

I learnt to think critically and was eager to find out the truth. For example, we looked at the tensions between Hong Kong people and mainland visitors. When mainland visitors eat and drink on the MTR, they are blamed and discriminated. If a Westerner did the same thing, I am sure that no one would say a word. Why? I have this view because of the principle of equality. It has nothing to do with identity. Therefore, we can be objective.

Bean was highly motivated to understand the tensions between Hong Kong people and mainland visitors. In addition, he made assumptions and recognised the features in a new context: how would Hong Kong people react if Westerners were to exhibit the same behaviour? Bean was aware of his own reflections on his thoughts. His experience noticeably revealed the preceding framework of critical thinking.

5.2.3 Level 3 – Applying generic skills

Table 5.5 Interview data reflecting the students' learning experiences as they relate to the pedagogical MI dimensions and learning outcomes (Level 3)

Pedagogical MI dimensions	**Students' perceptions of their learning experiences**	**Learning outcomes**
D4). Providing students with choices that allow them to use their intelligences in practical ways	T6). Creating knowledge through group projects	L3). Explain and apply sociological concepts and principles when discussing particular social issues (apply generic skills)

Creating knowledge through group projects (T6)

One of the most important pedagogical MI dimensions is student empowerment, according to which students are given opportunities to draw on multiple intelligences and use their different intelligences in practical ways to create important knowledge (Quinones, 2001; Rocka, 2001). Because the assessment methods of the course were structured, I thought about how the students could gain other types of knowledge from them. The course included written assignments, class activities, group projects and written examinations. I found that enhancing the students' higher-order thinking and allowing them to obtain in-depth knowledge through group projects could promote self-directed learning and give the students opportunities to demonstrate their intelligences and what they had learnt. As Campbell et al. (2004) suggest, "by initiating and completing projects of their choice, they [students] acquired valuable autonomous learning skills" (p. 18). As such, I selected topics that would engage the eight intelligences as much as possible so that the students with diverse intelligences had more choices in pursuing their projects (Table 5.6). When designing the research topics, I identified the major multiple intelligences that

seem most appropriate for the topics.

Table 5.6 Eight multiple intelligences identified that seem most appropriate for group projects

Research Topics	**Expected MI engaged**
1. Interview 10 young people born in the 1980s or 1990s. Ask them about their views about inequality in Hong Kong and the factors that affect their intention to take part in social movements.	Linguistic, logical-mathematical, bodily-kinesthetic, interpersonal and intrapersonal
2. Interview 15 women. Ask them about their impressions of their own appearances and the factors that affect their intention to seek cosmetic surgery.	Linguistic, logical-mathematical, bodily-kinesthetic, interpersonal and intrapersonal
3. Select one Asian society. Discuss the impact of globalisation on any socio-cultural issue in that society.	Linguistic, logical-mathematical, bodily-kinesthetic, interpersonal, intrapersonal
4. Select one Asian society. Discuss the current environmental issues in that society.	Linguistic, logical-mathematical, bodily-kinesthetic, interpersonal, intrapersonal and naturalist
5. Select one Asian society. Discuss the relationship between the mass media and everyday life in that society.	Linguistic, musical, spatial, interpersonal, intrapersonal and bodily-kinesthetic
6. Choose one movie/melodrama that reflects the socio-cultural issues in Hong Kong. Discuss how the movie is relevant to real life.	Linguistic, musical, spatial, interpersonal, intrapersonal, and bodily-kinesthetic

Six groups were formed in Class B. Each group consisted of four to six members. Table 5.7 specifies the titles of the group projects in Class B.

Table 5.7 Titles of the group projects in Class B

Group	Project title
G1	The brightness in Chungking mansions – Minority in Hong Kong
G2	What will the Hong Kong entertainment industry learn from the experience of the Korean Wave in South Korea?
G3	Is plastic surgery popular in Hong Kong?
G4	Hong Kong women's self-impression and cosmetic surgery
G5	The impact of reality show
G6	What is beauty? Is seeking cosmetic surgery the most effective way to enhance self-esteem?

Four of the six projects were related to the impacts of Korean popular culture on Hong Kong society. The students were particularly concerned about the widely accepted trend of cosmetic surgery among Hong Kong women. All of the groups except Group 5 selected Hong Kong as the research context. The students were able to apply the course content to real-life situations and apply their knowledge to new situations. Based on my observational notes, I was able to identify the students' learning skills during their oral presentations. The students were able to demonstrate their critical-thinking skills, provide examples, connect their content to real-life situations and examine the values associated with their issues.

The project oral presentations were scheduled for 31 March 2014 and 7 April 2014 (Box 4.3). During the presentations, I observed that some of the groups demonstrated a collective action: their workloads were allocated to members according to intelligence, and everyone in the groups was given a chance to contribute to their respective projects. Two of the groups performed skits in their oral presentations. Group 3 investigated whether plastic surgery was socially

accepted in Hong Kong. At the beginning of their presentation, the group members acted out two scenes, including a TV news broadcast and the announcement of a winner in a beauty contest. During the 5-minute skit, the winner was criticised for having plastic surgery and the scandal was reported on TV. The group clearly communicated that it did not support plastic surgery in terms of their choice of information presented in the skit. I noticed that the audience members paid attention when the presentation began and the group brought the issue up for discussion.

Group 4 provided another creative example. This group also chose the topic of cosmetic surgery. The group members acted out a TV interview to describe the feelings of a victim of bad cosmetic surgery. During the peer review session, the audience members mentioned that they could imagine the feelings of the victim and thought about the ethical issues involved despite cosmetic surgery being a personal choice. A debate ensued, and I observed that role-playing provided the bodily-kinesthetic intelligent students with an opportunity to act out rather than merely talk about a problem and therefore solve it effectively. During the peer review session, some of the students shared that it was childish to perform a skit in an oral presentation. Nevertheless, most of the audience members found the oral presentation interesting. The actors performed their skit in Cantonese only and did not deliver an oral presentation, perhaps because they were not confident in their use of English. The same was apparent in the presentation arrangement of Group 3. The two actors in this group were not involved in any other parts after performing their skit. However, I perceived cooperation and teamwork during the group's oral presentation. According to my observations during group project presentations, the work allocation revealed that the students were able to sense their own intelligences, recognise those of others and work together to make use of every member's strengths

to accomplish the task.

The group projects provided another example of cooperation and teamwork. Group 1's project related to the issue of minorities in Hong Kong. The group leader, who obviously exhibited bodily-kinesthetic and interpersonal intelligences, took the initiative to visit Chung King Mansions in Tsim Sha Tsui with two other members and interviewed a restaurant owner and two Indian residents to understand their lifestyles and collect their opinions of their interactions with Hong Kong people in daily life. During their oral presentation, they played a video clip of the interviews and showed the photos they took with the interviewees, who agreed to reveal their personal identities during the interviews. Some of the students demonstrated their creativity during the oral presentations. I observed that they seemed to enjoy working at being inventive. These students created a positive learning environment in the classroom and took initiative to share their discoveries with the audience members. The other two members of Group 1 even designed a matching game to play with audience members and raise their awareness of the issue of discrimination against minorities in Hong Kong. The students clearly used their intelligences by initiating and completing projects of their choice and demonstrated their intelligences in a variety of ways.

In terms of applying concepts to the content, only the Group 1 members discussed the values of equality and discrimination. The other groups were able to describe the topics being studied and analyse the problems associated with the interests of different social groups. However, the discussion referred only to different perspectives and opinions of the topics based on personal experiences or casual observations. The students had to go further to examine answers and views that were more relevant or better supported than others given the context and evidence from the discipline. Nevertheless, the data collected from the group

project helped me review the learning goals of the activities and showed me that I had to remind the students that critical thinking was more than common sense. Indeed, the students had to use evidence from their readings to support their claims and determine why some answers were more persuasive and convincing than others.

Based on the interview data, the student participants not only learnt about their strengths but also sensed themselves as learners who possessed the ability to create important knowledge. Hing was the group leader of Group 1. She shared that she became more aware of the interests of minority groups in Hong Kong after working on her project:

> *Before doing the project, I was not interested in understanding the lives of minorities in Hong Kong. I was free to choose any topic, but I finally decided to use the interview method to do the group project. The interviewees were very nice and kind. One day, I saw a Thai person buying things on the street and heard the shop owner raise the prices. In the past, I would have ignored it. Now, I would be willing to help the Thai person get a lower price. We could even become friends. I found that if I were not interested in anything, I may become a fool without thinking.*

Nam learnt to understand himself and appreciate the strengths of others. In the process, he realised his strengths and gained important knowledge:

> *It was good to choose our own research topics. We looked at the issue of Otaku in Japan and went through a learning process that made me more confident. We learnt how to compromise when we had different views, how to*

respond to criticisms, etc. After engaging in discussions with others, I developed a more in-depth understanding of my own views.

In addition, the students become aware of the importance of cooperation in real-life situations and learnt how to solve problems. Bun's written self-reflection admitted the following:

As for the group work, I found that the most complicated thing was integrating all of my group mates' ideas. I learnt about the importance of respecting others and being modest. We should listen to others patiently, modestly and without bias in a group discussion to make ideal decisions.

Learning to apply concepts to real-life situations was one of the cognitive skills required by the course. One of the student participants was able to apply the concept of social institutions to understand the differences between Hong Kong people and mainlanders in terms of language and social values. Yan's written self-reflection described the following:

As a mainland student, I think it is normal for women have cosmetic surgery. My friends from high school had cosmetic surgery like double-eye lid operations. It is very different in Hong Kong, as people here like natural beauty. This project taught me more about how different cultures influence society in different ways. I now know more about social values and their effects. This kind of knowledge has allowed me to think deeply about the things happening around me and consider more than my own opinion on the topic.

The preceding interview data, my observational notes taken during class activities and the students' written self-reflections on group projects revealed that using MI theory as a framework for the instructional design of the course empowered the students to take ownership of their learning experiences. When students learn about a topic through reality-based curriculum and multimedia sources, their intelligences may be activated, and they may use these intelligences to consider the topic in several ways (Gardner, 2011). This may allow them to apply their skills to real-life situations and create important knowledge.

CHAPTER SIX: DISCUSSION AND IMPLICATIONS

6.1 Summary and personal reflections

This qualitative case study investigated the teaching practices in a general education course at a Hong Kong community college. It was intended as a reflection on the instructional design and teaching strategies I applied in an MI-inspired general education course. I took on the role of participant observer to examine how a combination of MI theory and integrated thematic instruction supported the pedagogical goals of general education. The research questions arose from my professional interest in how a general education course should be designed and taught and how students could be helped to achieve learning outcomes. The research was conducted within the context of a Hong Kong community college that witnessed system-wide education reforms in 2012. The single unit of analysis was the students who completed a general education course I conducted during the 2013/14 academic year, which comprised the study period. I used interviews with open-ended questions as the instruments to collect students' voices about their learning experiences in the MI-inspired general education course. Merriam (1988) remarks that the research process begins with at least "an organising image of the phenomenon" to be examined and "theory provides direction for the initial formulation of research questions through to the selection of facts and the interpretation of findings" (p. 61). I adopted MI theory as my curriculum framework and integrated thematic instruction as teaching approach. Three research questions were posed. First, how does a course instructor design and teach a general education course at a community college in Hong Kong? Second, how do community college students experience learning in such a course? Third, how do community college students evaluate their learning outcomes in such a course? The

interview data clearly revealed that the students' learning experiences in an MI-inspired general education course included making connections to lived experience, applying the course content, learning to synthesise information and find relationships, learning to think critically, learning to solve problems and creating knowledge through group projects. Apparently, their learning experiences corresponded to four dimensions of MI theory in instructional design: designing broad-based knowledge and reality-based curriculum, using multimedia sources as teaching materials, developing cognitive skills in students and empowering students to learn. The findings noticeably showed that combining MI theory and integrated thematic instruction supported the pedagogical goals of general education. Results of college-wide teaching evaluations indicated that students gave higher ratings to their learning experiences in an MI-inspired general education course. I further examined the MI model of learning experience generated from the interview data through my observations of the students' interactions in practice in addition to the students' written self-reflections on group projects.

This study revealed my exploration of the instructional design of an associate degree general education course. Howard Gardner's MI theory provides a rich theoretical framework for designing a case study and providing guidance to collect relevant data. Chapter Two includes a review of the studies that have applied MI theory to classrooms at the community college level in the United States. Most of their findings have shown that the theory enhances student learning, self-understanding and self-esteem. MI theory specifies a clear set of eight intelligences that support the diversity of students' strengths in school and other learning environments. Using MI theory to support the diversity of students' intelligences seems to help community college students succeed. However, the students' comments on the course may provide insights into my pedagogical

initiatives. Table 6.1 presents the common areas for improvement as suggested by Class B on the teaching evaluations, including the scope of topics, teaching materials and teaching methods.

Table 6.1 Areas for improvement suggested by Class B on the teaching evaluations

Common comments
1. There should have been more assessment guidelines.
2. I do not know how to improve after completing the written assignment.
3. The scope of topics was too broad.
4. Not enough time was spent on the illustration of one concept.
5. More concrete examples were required.
6. There was too much information and it was hard to digest.
7. More films and videos were required.
8. More pictures or diagrams were required.

As Gardner (2006) reminds, it is a challenge for MI educators to balance specialised and comprehensive knowledge in curriculum. Yeung et al. (2012) remark that advocates of the curriculum conception which develops cognitive abilities in students, supports the argument that the content of the subject is less important. Students ultimately forget particular content. What matters are the cognitive skills that help students "infer, speculate, deduce or analyse" (p. 42).

According to the interview data and my observations of student interactions in practice, MI theory supports the goals of general education in four ways. The theory supports 1). the design of broad-based knowledge and reality-based curriculum, 2). a pluralistic teaching approach through the use of multimedia sources, 3). the development of cognitive skills in students and 4). an open learning environment that provides students with choices to use their intelligences in practical ways. The student participants were interested in learning about things they could

apply to real-life situations. One student participant said that he would feel a sense of social dislocation if he did not know what was happening in society. The interview data also confirmed that an open learning environment could have enabled the students to practise critical-thinking, problem-solving and communication skills related to the content. In addition, team-based learning activities could have connected the course goals, concepts and activities that the students found useful. Through participation in class activities, the students were able to deepen their understanding of the concepts and apply them to real-life contexts. The group projects drew on the eight intelligences. The students were given opportunities to use their strengths in practical ways and developed a better understanding of their abilities and interests. Kovalik (1992) highlights the importance of reality-based curriculum:

> Demonstration of mastery of curriculum should be through application of relevant knowledge, skills, attitudes and values, situations, and settings, in accordance with standards typical of adult living and the work place. Focus should be placed on real life usefulness and standards. (p. xx)

In this case, the group projects drew on numerous intelligences. The interview data revealed that the students made discoveries and connections, constructed new knowledge and sought meaning and resolution on their own.

The findings of this study may not represent or replicate the same course taught by other teachers or other general education courses taught in the same community college or other community colleges in Hong Kong. As Yin (2014) stresses, a common concern about case studies is the "apparent inability to generalise" their findings (p. 20). Yin (2014) accentuates the distinction between "analytic

generalisation and statistical generalisation" (p. 40). The latter is not an appropriate choice for evaluating the quality of the research design, as this qualitative case study is not a "sampling unit". Furthermore, Yin (2014) argues that "case studies, like experiments, are generalisable to theoretical propositions and not to populations or universes" (p. 21). This case study involved a holistic single-case research design. Students who had completed a general education course grounded in MI theory served as the unit of analysis to represent the critical test of whether MI theory supported teaching in general education. I anticipate that the findings may provide an additional knowledge base for teaching practices and student learning in general education at Hong Kong community colleges.

This study had three major limitations. First, the representation of sample (students within a community college) was based on convenience sampling. I originally planned to invite twelve students who had taken the course to participate in hour-long interviews. However, only six students turned up for the interviews. The student participants were active learners and were able to make the most of the course. Hence, they provided positive feedback about the course. Based on my observations, half of the class comprised passive learners who were not well-prepared for college study and remained silent during class activities. Future studies should examine the learning needs of passive learners and how they learn better in an MI-inspired general education course. Second, I positioned myself as a participant observer in this study. I encountered difficulties during my classroom observations when my position was unclear and when I focused too much on observation rather than my teaching duties. In my role as researcher, I wrote down and expanded my observations as completely as possible and attempted to complete the work within three days after a class to avoid forgetting. However, I could have finished writing the journals within two weeks. I also could have set up a video

camera in the classroom to record the learning activities, given that such an initiative had the support of the college and students. Third, some of the student participants were quiet during the interviews, and I asked many probing questions that might have affected their responses. As such, my interview skills required improvement. Creswell (2014) advises researchers to learn and practise interview skills especially for case studies, in which interviews comprise an important instrument for collecting qualitative data.

The most important finding of this case study is its determination of an MI model of learning experience in a general education course. The course created opportunities for students to realise their strengths and practise their intelligences in a variety of ways. The reality-based curriculum, multimedia sources and open learning environment allowed the students to activate their intelligences and use them to think about a topic in many ways. The students may go further to apply their skills to real-life situations and discover more important knowledge. The findings indicate that the group projects were appropriate learning activities that enhanced the students' higher-order thinking, empowered them to learn and gave them the choice to take ownership of their learning experiences.

In this case study, I reflected on my own teaching practices and discovered more about the backgrounds of my students and their diversity in different areas including their academic skills, aspirations to acquire college credentials and personal goals. Perin (2013) reminds that academically underprepared students may experience high levels of anxiety, memories of academic failure and perceptions that instructors have low expectations of community college students: "it is important to understand the emotional experience of academically underprepared students [because] academic motivation is influenced by students' goals … sense of control … level of interests … recognition … [and] quality of social interaction" (p.

90). From the societal to the individual level, it is unknown whether the goals of general education can be fully achieved in terms of teaching practices and student learning. I believe that teachers should be independent life-long learners, and I will continue to reflect on my own teaching practices and refine my general education teaching plan to help students develop different cognitive skills, apply concepts to real-life contexts and learn to solve problems. As Armstrong (2009) notes, MI teachers keep their educational objectives firmly in mind and use different teaching methods that can engage students with diverse interest and intelligence in learning.

6.2 Implications for practitioners

Although my curricular innovation indicates some positive changes, certain problems and constraints persist. General education courses are designed according to discipline, and each discipline seldom initiates collaboration across departments. Therefore, without the concerted efforts of different departments, it is hard to develop general education curriculum that adopt an interdisciplinary approach and integrate different disciplinary perspectives at both the programme and course levels. In addition, general education sharing and training sessions for teachers are rarely organised at the college. However, general education sharing sessions are held regularly at the university. The different pedagogical goals of general education may threaten the connection between curriculum and learning goals. Students are not given a chance to understand the goals of general education. Because most of them just feel as though they are being forced to take general education courses, it is unsurprising to see large numbers of passive learners in classrooms. For MI theory to be successfully implemented, corresponding changes must be made to the curriculum, pedagogy and assessment methods. The college strives to nurture interdisciplinary perspectives in students through general education. To this end,

the results of this case study can offer faculties and administrators practical advice on general education curriculum development, teachers' professional training and prospects of future course development.

6.2.1 Development of integrative curriculum

Hanstedt (2012) reminds that the terms "interdisciplinary" and "integration" mean different things (p. 13). He explains that the term "interdisciplinary … often has an artificial quality, moving an instructor away from her discipline into other fields for which she may be less prepared" (p. 13). In fact, the term "integration" is more appropriate for describing the purpose of interdisciplinary general education and is commonly used by liberal arts universities and colleges. Hanstedt (2012) adds that an integrative approach to curriculum "create[s] explicit connections among courses, fields, majors, disciplines, and traditionally academic and non-academic areas or, even better, is designed to create the opportunity for students themselves to draw those links" (p. 12). Co-curricular activities may offer an approach to integration at the course level (Bresciani, 2007). Faculties from different disciplines may meet and discuss topics of concern, draw themes or topics from their own fields and learn from one another. This type of integrative general education course gives students the opportunity to synthesise their learning experiences in other courses and attempt to create a meaningful whole out of varied information (Hanstedt, 2012). Collaboration across disciplines could be encouraged in curriculum development.

This case study identified four MI dimensions in instructional design that can be used in integrative curriculum development. First, broad-based knowledge and reality-based curriculum can engage students' thinking across a broad range of disciplines. Second, combining MI seven entry points with the use of multimedia

resources as teaching strategies can cater to students' pedagogical needs in different disciplines. Third, learning outcomes can be translated into cognitive terms that are observed and assessed in practical ways. Fourth, students are empowered to use their strengths to learn and demonstrate their mastery of knowledge in practical ways. Under these circumstances, the dimensions of MI in instructional design can provide common aspects for co-curricular activities and collaborations across disciplines in the development of integrative general education curriculum in addition to general education teaching practices and student learning. For example, co-curricular general education course entitled 'Current Issues in Asian Societies' can be developed by the departments of Mathematics and Social Sciences. The course introduces students to the principles of statistics which are necessary for the understanding of statistical content such as different kinds of reports related to economic development and social policies in Asian societies. In addition, students can learn to apply the knowledge of statistical principles to the real-life situations through the study of sociology. Students will use sociological theories to understand the complexity of a society by evaluating and analysing various sources of information including statistical data. Thematic instruction can be adopted in the course. The two departments work together to define teaching and learning goals, draw themes or topics and select multimedia resources that are most appropriate for community college students with diverse interests and intelligence. By the end of the course, students will be able to understand statistical content in real world practice and apply the sociological concepts to analyse the political, economic and socio-cultural issues in Asian societies by evaluating different sources of data and information in the real-life context. As such, the MI dimensions in instructional design will be applied in co-curricular general education course to help student build connections between disciplines and make sense of interdisciplinary

information.

In view of the assessment of general education teaching, a separate evaluation survey for general education courses should be designed to collect information that is useful to the faculties responsible for the quality of general education teaching practices and student learning (Bresciani, 2007). According to the survey results, faculties are able to identify the areas for improvement in general education teaching and learning in terms of the definition of course objectives, teaching and learning activities and learning outcomes. As such, the connection between the educational and pedagogical goals of general education and students' learning needs will be strengthened.

6.2.2 Teachers' professional training

There is no one set of pedagogical guidelines. Teachers' concepts of curriculum affect the pedagogical approach. Yeung et al. (2012) state the following:

> To develop the cognitive process of students, a teacher must infuse cognitive models in the curriculum design and in the classroom setting. The teacher should also be creative, reflective, critical, and analytical. He or she should be able to cultivate a learning climax or a thinking classroom to facilitate creative thinking in the students. (p. 42)

Teachers can find it challenging to strive to innovative teaching in a structured curriculum. Yeung et al. (2012) mentions that many governments and educational administrators have found outcome-based curriculum useful for management because they involve a "scientific procedure of effective instructional planning,

including setting up objectives, selecting and organising teaching content and learning experiences, and planning for tests and assessments" (p. 34). As such, teachers should be exposed to different teaching approaches and define their own pedagogical goals in connection with the general education learning outcomes of the institution or discipline. This involvement can be mutually beneficial for both faculties and students. As Perin (2013) emphasises, getting to know what the students need can help a teacher design a well-suited educational instruction method. Hunter and Michaelsen (2012) advise teachers to "not be afraid to create your own goals to fit the outcome you want to see from your students" (p. 84).

After obtaining a year of teaching experience in the general education course, I attempted to reflect on my instructional design and teaching methods by exploring MI theory. This case study provided me with a chance to enrich my understanding of the general education teaching practices at a Hong Kong community college and realise the significance of the connection between pedagogy and learning outcomes.

6.2.3 Prospects of future course development

The teaching practices and student learning examined in this case study were unable to engage all the eight MI due to the structured course curriculum and assessment methods. In particular, the teaching and learning practices corresponding to the bodily-kinesthetic, interpersonal, intrapersonal and naturalist intelligences were not well-designed. In addition, only a handful of active students made the most of the course. The majority were not active learners and remained silent in class discussions or failed to demonstrate their mastery of knowledge through written assignments or group projects. During the research process, I observed that class activities and assignments completed in pairs or groups seemed more appropriate for the students than individual work because cooperative learning

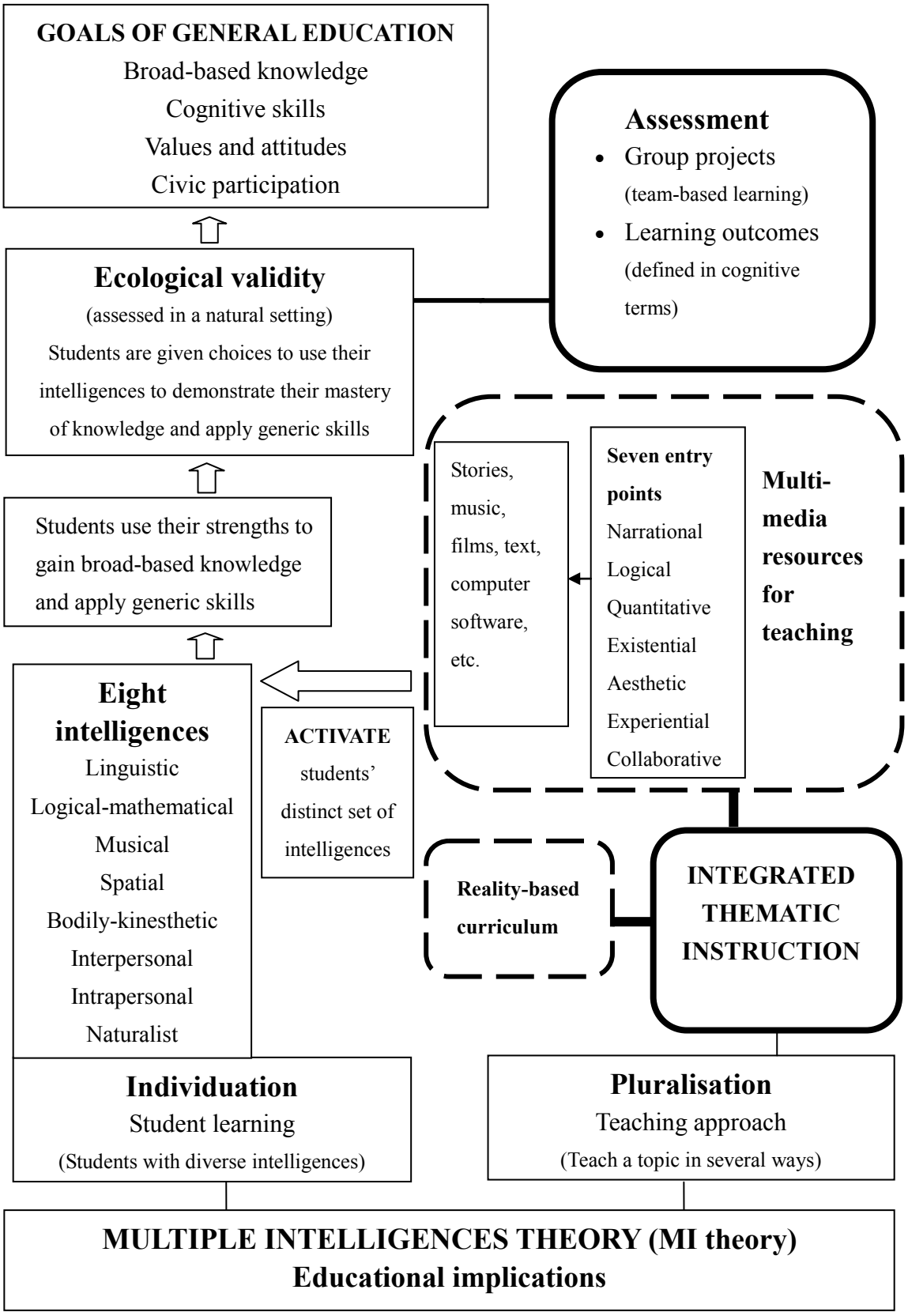
had been encouraged. To reach more students with diverse strengths and interests, teaching and learning activities corresponding to each intelligence that seem most appropriate for communicating course content must be identified in future course development. Teachers are encouraged to file their accumulating MI teaching experience in teacher journal including the use of multimedia resources and learning activities corresponding to eight multiple intelligences. An MI instructional menu could be developed to expand pedagogical repertoires and infuse variety into lessons engaging the eight MI according to teachers' own teaching context and learning goals. Campbell's (1997) MI menus is one of the examples.

According to the purposes of general education as defined by the Education Bureau, students should learn "a spirit of lifelong learning, develop the ability to learn how to learn, and encourage the pursuit of active citizenship" (EDB, 2011, p. 1) in addition to broad-based knowledge and generic skills. The University's whole-person philosophy focuses on helping students master content knowledge, developing critical- and analytical-thinking skills in students, teaching the important values and attitudes and civic participation. It is clear that education should not be only about knowledge and generic skills. Educators should also nurture students with values, attitudes and civic responsibilities. As my first attempt on the application of MI theory to general education course at a community college, I noticed that my course was more about the delivery of knowledge and the development of cognitive skills in students in terms of the educational goals of general education. To implement a general education course that adheres to both the government's guidelines and the University's philosophy of whole-person education, the concerted efforts across departments are required for future co-curricular general education course development and instructional design.

6.3 Implications for future educational research

The self-evaluations conducted by the students during their interviews revealed that only a handful of students achieved the learning outcomes of the course, which involved using the various types of intelligence in practical ways. The majority of students failed to engage their intelligences in either the class activities or group projects. The United States and Hong Kong exhibit contextual variations. Community colleges in America are open access and enrol "disproportionate numbers of low-income, non-Caucasian [ethical minority] students, 41% of whom are the first in their families to attend higher education" (Perin, 2013, p. 87). MI theory has mostly been applied to general development courses in which students have not completed secondary education. The course contents are mainly life skill, English language and arithmetic based. Community colleges in Hong Kong have entrance requirements and students face high selection criteria. Although most students are academically underprepared, they have already finished six years of secondary education, and some have aspirations to obtain college credentials to get ahead of their studies at four-year universities. Therefore, the MI framework for general education has been refined to suit the teaching and learning needs of Hong Kong community colleges (Diagram 6.1). MI theory faces two limitations when it is applied to instructional design and teaching practices. First, there is a gap between MI pluralisation (seven entry points) and classroom activities. Second, the connection of ecological validity with assessment methods requires further elaboration. The following sections discuss the implications for future research.

Diagram 6.1 Refined MI framework for general education



Note: ▭ ┄┄

Parts newly added to refine MI theory

1. Incorporation of MI theory into other pedagogies

The educational implications of MI theory – individuation and pluralisation – provide a framework for instructional design but provide no suggestions for specific teaching strategies or classroom activities, which depend on how teachers interpret MI theory. This is a practical issue that MI theory does not deliberate. There is a missing link between the theory and pedagogy that requires teachers to link educational implications with daily operations in the classroom. In doing so, teachers must incorporate MI theory into relevant pedagogies that suit the learning needs of their students. In addition to team-based learning, the combination of MI theory and integrated thematic instruction is well-suited for academically underprepared students at Hong Kong community colleges.

Diagram 6.1 shows a refined MI framework for a general education course. The seven entry points into MI only provide teachers with teaching approaches to lesson content. How does a course instructor design and teach a general education course? As Armstrong (2009) suggests, Kovalik's (1994) integrated thematic instruction can translate MI theory into teaching practices. Two major elements of integrated thematic instruction are added to the MI framework: reality-based curriculum and the use of multimedia resources as teaching strategies. Reality-based curriculum require teachers to select themes that help students find connections with real-world situations throughout a course. Kovalik (1994) advocates that students should learn the knowledge through "being there" (p. xviii) so that they can experience it in natural settings. Students in the current era of globalisation no doubt grew up with technology. As mentioned in Section 6.2.3, MI instructional menus that correspond to the seven entry points could be developed to expand pedagogical repertoires and infuse variety into lessons. Furthermore, incorporating multimedia resources into the seven entry points could help teachers

identify and select updated teaching resources that empower students with diverse intelligences and interests to learn.

2. Measurement of the MI dimensions

Gardner (2011) admits that it is difficult to measure the learning experiences that correspond to each kind of intelligence. MI theory suggests that assessments should be conducted in a natural setting. For example, teachers could give feedback to students while they work on projects or small class activities. These suggestions apply only to the design of classroom activities. MI theory does not give any advice about the measurement of MI dimensions in teaching practices and student learning. Hence, team-based learning through group projects may be an appropriate classroom-based activity for assessments at community colleges (Diagram 6.1). It provides students with choices to pursue their project and gives them opportunities to demonstrate their mastery of knowledge and practise their intelligences in their own ways, such as by performing skits, playing games, conducting interviews and taking photographs. In addition, group projects draw on multiple intelligences. Teachers could design different guidelines to help students use their intelligences in practical ways by initiating and completing projects. Learning outcomes can be defined in cognitive terms for the purposes of assessment. For example, they could determine whether students are able to find relationships between information, are able to evaluate the value of an issue and have any motivation to engage in reflection. They could also support the outcome-based assessments that are currently widely used in Hong Kong community colleges.

3. Research related to small class teaching

MI theory should be more effectively applied to small class teaching. It would

allow teachers to pay more attention to each student and have the time to give individual feedback about their strengths and weaknesses. Students could be given more opportunities to learn and practise their intelligences. In view of learning environments, students get along well when their classes are small and they can learn from one another. Small classes enable students to learn their intelligences and recognise the strengths of others. As such, cooperation and teamwork should be promoted and students should learn and practise interpersonal and intrapersonal intelligences in small classes.

4. Roles of institutional support

Senior management plays an important role in the implementation of an MI-inspired general education courses. Collaboration across college departments is a crucial step for implementing the MI-inspired general education courses, which adopt an integrated approach to curriculum development. Combining MI theory and integrative thematic instruction with team-based learning can help a community college establish innovative teaching practices and broad-based curriculum. When a communication gap exists between a parent university, college administrators and general education teachers, students cannot connect the educational goals of general education with the learning outcomes of a general education course due to the uncertain pedagogical goals of the course. This case study attempted to apply MI framework to pedagogy in general education at a community college in Hong Kong. In terms of learning outcomes of the course, my course focuses on knowledge and cognitive skills due to structured curriculum and assessment methods. To develop a sense of civic participation and interdisciplinary perspectives in students, collaborations across disciplines that seem most important for communicating course content must be encouraged and supported by the institutions.

6.4 Concluding remarks

This case study was intended as a reflection on my instructional design and teaching strategies I employed in an MI-inspired general education course at a community college in Hong Kong. I took on the role of participant observer to examine my pedagogical initiative that I incorporated MI theory into integrated thematic instruction in the design of teaching and learning activities, and the implementation of the course. The interview data clearly revealed that the students' learning experiences in the MI-inspired general education course included making connections to lived experience; applying the course content to real-life situations; learning to synthesise information, find relationships, think critically and solve problems; and creating knowledge through group projects. The students' learning experiences corresponded to four dimensions of MI theory in terms of instructional design. These dimensions included designing broad-based knowledge and reality-based curriculum, using multimedia sources as teaching materials, developing cognitive skills in students and empowering students to learn. The interview data reflecting the students' learning experiences as they relate to pedagogical MI dimensions were examined through my observations of students' interactions in practice in addition to the students' written self-reflections on group projects. The incorporation of MI theory into integrated thematic instruction was a pedagogical initiative to support the goals of general education and strengthen learning opportunities for community college students with multiple intelligences. There are some limitations of the study related to the representation of sample and the structured curriculum and assessment methods. However, as a first attempt to apply MI theory to pedagogy in general education at community colleges in the Hong Kong context, a refined MI framework for general education was recommended. Community college graduates comprise a sizeable portion of the

labour force population. As such, it is important to prepare community college students to reach their full development and assume their civic responsibilities as participants in society by taking general education courses. It is essentially to call educators attention to the general education curriculum development and the instructional design of general education courses at community colleges. The findings of this case study should contribute to the knowledge of teaching and learning in general education at community colleges in Hong Kong.

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Appendix 1

Letter to student participants

Dear Student,

I am currently enrolled in a doctoral programme in The Chinese University of Hong Kong. As part of fulfilment of the programme requirements, I am required to conduct a research that will be beneficial to the educational setting. The purpose of the research project is to investigate if students will benefit from the general education that have considered multiple intelligences in the course content, assessment methods, and delivery of subject matter.

I would like to conduct an hour interview to collect data related to your learning experiences. All data collected from the interviews will be recorded in an anonymous method and held in the strictest confidence. Participants will be assigned either a number or pseudonym that their personal data will not be identified. Your confidentiality will remain secure.

Your participation in this study is completely voluntary and withdrawal from participating in the study at any time is acceptable. There are no consequences if you do not want to complete the interview.

If you have any questions or need further information, please call me at _____ or email me at _____

If you agree to participate in the interview, please sign the attached consent form and keep it together with this letter for your records.

Yours sincerely,

_____

Lucy S.P. Kong
The Chinese University of Hong Kong
Doctoral Candidate

Appendix 2

Research instrument - Interview protocol

CONFIDENTIAL

Interview protocol

Title: A case study of teaching and learning in general education at a community college in Hong Kong

Time of interview:

Date:

Place:

Interviewer:

Interviewee:

- **Have the interviewee read the letter to student participants.**
- **Go over each item on the consent form with the interviewee and have the interviewee sign the form. Original form will be kept by the interviewer while a copy for the interviewee.**
- **Get the audio tape device ready.**

The purpose of the research project is to investigate students' perceptions of their learning experience in the general education course.
本研究目的旨在調查修讀本課程的學生有關其學習經歷的理解。

Background (Interviewee)

Name

Age

Year of Study

A-level graduate or DSE graduate or other qualifications (optional)

Interview questions

1. What are your overall feelings about learning this general education course? 整體來說，你對此課程有何感受?	**Remarks**

2. Can you tell me which sessions of the course you find rewarding?
你認為這個課程那個部份令你覺得獲益良多?

3. Do you want to share any other learning experiences in this course?
你有沒有其他有關學習這個課程的經驗分享?

4. Do you think you have achieved the learning outcome of the course?
你認為你取得這個課程的學習成果嗎?

Thank you for your participation in this interview. Your responses will be kept in strictly confidence. Future interviews may be needed.
多謝參加今次訪談，所有內容完全保密，日後可能再次邀請你參加訪談。

Probes – Adapted from Wallace (2010)

- Do you agree with the following statements relating to general education course? Why ?
  你是否認同以下關於學習通識科的陳述? 為什麼?
  - + Some people say that you should move away from the generic process of memorisation. It is necessary to learn to ask for questions and explanations.
    一些人認為學生不應死背書, 必須學習提出問題及尋找解釋。
  - + Some people say that the essential aspect of sociology is to help students develop their critical thinking abilities. The ability allows students to view the world through a new perspective.
    一些人認為社會學通識科最重要是發展學生批判思考, 能夠用新角度去認識世界。
  - + Some people say that students who are able to engage in higher order thinking often have the ability to critically examine values, beliefs, and structures.
    一些人認為若學生能對不同的價值觀、信念及組織架構進行批判性探討, 他們可以被視為高階思考者。
  - + Some people think that "sociology is everywhere". Group project can help students incorporate the course material into their everyday lives.
    一些人認為"社會學無所不在", 小組研究習作能幫助學生將課堂所學應用於日常生活。
  - + Some people argue that students who are critical thinkers become excited about and analyse the course material, and incorporate the course content into their understanding of their daily worlds and personal lived experiences.
    一些人表明學生要成為批判思考者, 必須對課堂資料表現雀躍及能夠分析資料、應用課堂資料於日常生活及個人生活經驗中。
- What approaches do you take when it comes to learn social phenomenon in Hong Kong and the region? 你會如何學習有關於香港及其他亞洲地區出現的社會現象?
- When you first learn some new sociological concepts, what do you do? 當你第一次學習社會學概念/理論, 你會採取什麼行動?
- In learning how to apply the sociological concepts in everyday lives, how do you approach? 你會如何應用社會學概念/理論於日常生活中?
- When you read something in the target course and you only understand part of it, what do you do? 若你只能理解部份課堂資料, 你會如何處理?
- When you need to learn some new items in the target course, how do you remember them? 你如何牢記於課堂上學習的新資料?
- How motivated are you when you are learning different social issues in Hong Kong and the region? 你對學習香港及其他地區的不同社會議題有多熱衷?
- In what ways do you encourage yourself when you are learning new social issues? 你如何鼓勵自己學習新的社會議題?

Appendix 3

Consent Form for interview participation

The purpose of the interview and its objectives has been explained to me.

I voluntarily give my consent to participate in this study.

I permit to audio tape the interview.

I understand that the data collected (including my personal data) during the process of the interview will only be appeared in the interviewer's doctoral thesis.*

The confidentiality of all information associated with this research project has been assured.

There are no consequences if I do not want to complete the interview.

Name of Student: _____

Signature of Student: _____

Date: _____

*The interviewer is Kong Siu Ping, Lucy who is a doctoral candidate of The Chinese University of Hong Kong.

Appendix 4

MI-based questions for community college students - Adapted from *7 Kinds of Smart* by Thomas Armstrong (1999)

GE2014 Culture and Society
(2013-14, Semester 2)

Name (in full): _____ Native language:____ DSE or others ____
Major / Concentration : _____ Year of Study : _____

It would be very helpful for your study if you could understand your interests and learning goals.

Rate each of the following items, in terms of how much it applies to you, using the following scale:

0 = Not like me 1 = Slightly like me 2 = Somewhat like me 3 = Like me 4 = Very much like me

_____ I can easily express myself either orally or in writing.
_____ In school, I preferred subjects such as English, History and Social Studies
_____ I enjoy the challenge of brain teasers or other puzzles that require logical thinking.
_____ Math and Science were among my favorite subjects in school.
_____ I tend to make a visual record of events with a camera or camcorder.
_____ I often make my point by providing a diagram or drawing.
_____ I like to think through problems while engaged in a physical activity such as walking.
_____ The most enjoyable classes in school were Physical Education and other hands-on classes.
_____ Theme music or commercial jingles often pop into my head.
_____ I like music in the background when I am working.
_____ I prefer team sports (participating and /or watching) to individual sports.
_____ I have no hesitation in taking the lead, or showing other people how to get things done.
_____ I keep a personal journal or diary to record my innermost thoughts.
_____ I often spend “quiet time” reflecting on the important issues in my life.
_____ I have an understanding of, and interest in, the main global environmental issues.
_____ I am interested in social issues, psychology and human motivations.

How do you describe your learning style?

_____

_____

What do you expect to learn in this course?

_____

_____

What do you expect to achieve in this course?

_____

_____

Do you wish to obtain a Bachelor's degree? _____

What are your dreams?

_____

_____

Hope you have a happy learning in the coming weeks! ☺

Appendix 5

Example of a rubric for individual activity – Group project oral presentation

Grade (Marks) / Criteria	A (20 – 16)	B (15 – 11)	C (10 – 6)	D (5 – 1)	Fail
Organisation	Logical and coherent structure with an introduction of the purpose of presentation, main body and conclusion.	Logical structure with an introduction of the purpose of presentation, main body and conclusion.	Incoherent structure without an introduction of the purpose of presentation or main body or conclusion.	Lacks structure	Plagiarism or no submission or the group is absent
Content	Logical argument with a sound conclusion supported by valid and relevant evidence. All the materials were relevant to the topic.	Logical argument with a conclusion not supported by valid and relevant evidence. Some materials were irrelevant to the topic.	Argument with some conflicting points and conclusion not supported by valid and relevant evidence. Most of the materials were irrelevant to the topic.	Argument with conflicting points and no conclusion. Irrelevant materials.	
Presentation Skills	Able to keep to the point and manage to look directly at the audience regularly. Visual aid can reinforce the argument and clarify points.	Able to keep to the point and manage to look directly at the audience occasionally. Visual aid can reinforce the argument and clarify some	Keep to the point occasionally and rarely look at the audience. Visual aid can reinforce the argument and clarify points to a certain extent.	Wandering off the point and rarely look at the audience. Visual aid is unable to reinforce the argument and clarify points.	

		points.			
Individual Performance	Excellent cooperation among members. Clear introduction of group members and equal share of individual workload during the presentation.	Good cooperation among members. Clear introduction of group members and acceptable individual workload during the presentation.	Average cooperation among members. Clear introduction of group members. Workload is not equally shared during the presentation.	Poor cooperation among members. Unclear introduction of group members or some members are absent. Workload is not equally shared during the presentation.	
Comments on other group presentation	Able to point out the strengths and weaknesses of the presentation.	Able to point out most of the strengths and weaknesses of the presentation.	Able to point out some of the strengths and weaknesses of the presentation.	Irrelevant comments	