

**Effects of collaborative learning on undergraduate students' self-efficacy and
engagement in learning: An Action Research Study**

by

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Abstract

Self-efficacy is found to be a strong predictor of academic achievement. Self-efficacy is positively related to engagement, raising self-efficacy improves academic success and performance. To improve students' performance, collaborative learning is one of the teaching approaches for enhancing self-efficacy and engagement in learning. Collaborative learning is extensively used to facilitate students' learning in education. Despite substantial literature regarding the application of collaborative learning in different disciplines, there was limited relevant literature specifying the design of collaborative learning for enhancing self-efficacy, engagement and subject knowledge in learning. Most of the similar studies have been conducted in western settings, this study was the unique cultural contribution to the existing studies. This study adopted an action research approach which aimed to explore the effect of collaborative learning on undergraduate students' self-efficacy and engagement in learning.

There were three cycles in the action research design, each set in a different context. In Cycle One, the research was based on Bandura's self-efficacy belief and Linnenbrink and Pintrich's general framework for self-efficacy, engagement and learning. The researcher designed a collaborative learning framework and examined the effect of the collaborative learning on undergraduate students' self-efficacy and engagement in learning English in the first cycle. Five undergraduate students completed the collaborative learning over a two months' period. Data were collected through questionnaires and focus group interview at the end of Cycle One. The undergraduate students had significantly increased in their language self-efficacy scores. Three themes, namely, gained some sources of self-efficacy in learning English, increased in self-efficacy in learning English, and increased engagement in learning English emerged from the undergraduate students. These findings demonstrated that the collaborative learning was feasible and helped the undergraduate students to gain self-efficacy and engagement in learning. Some strategies for helping students improve their self-efficacy and

engagement learning English were further explored in the next two cycles.

In Cycle Two, King's goal attainment theory was adopted in the collaborative learning. The researcher revised the conceptual framework in Cycle Two. The aim of this cycle was to ascertain the effect of the collaborative learning on the undergraduate students' self-efficacy and engagement in learning English in the newly devised conceptual framework. Eight undergraduate students completed the collaborative learning in two semesters. Data were collected through questionnaires and focus group interview at the end of Cycle Two. Goal setting impacts on enhancement of students' self-efficacy. Three themes, namely, improvement in English, gained varied skills, and developed positive attitude in learning emerged from the undergraduate students. These findings demonstrated that most students achieved their goals, perceived enhancement of self-efficacy, and engagement in learning via participation in this collaborative learning. The application of collaborative learning in a conventional classroom setting with another subject matter as the teaching content was further explored in last cycle.

In the third and last cycle, the focus was to evaluate the effect of the collaborative learning on undergraduate students in learning nutrition. Through the collaborative process, the undergraduate students' learning was assessed with respect to their self-efficacy, social skills and nutrition knowledge in learning nutrition. Forty-nine undergraduate students studied in this nutrition course with collaborative learning as the teaching approach. The findings supported that most students achieved goals, experienced enhancement of self-efficacy in learning, and improved their nutrition knowledge and social skills via their participation in this collaborative learning environment.

This study has proposed a design for collaborative learning and has demonstrated its application in two subject areas. Seven design features of collaborative learning are recommended for effective collaborative learning. The newly developed conceptual model is original and the research findings showed that the collaborative learning with mutual goal

setting process is effective in improving self-efficacy, engagement and subject knowledge in learning and in turn improving social skills. It is feasible to replicate the design of this collaborative learning in future research.

Keywords: self-efficacy, engagement in learning, collaborative learning, action research

Presentations and Publications

Manuscript:

- Law, Q. P. S., Chung, J. W. Y., Leung, C. C., & Wong, T. K. S. (2015). Enhancement of self-efficacy and interest in learning English of undergraduate students with low English proficiency through a collaborative learning. *American Journal of Educational Research*, 3(10), 1284–1290. <http://doi.org/10.12691/education-3-10-12>
- Law, Q. P. S., Chung, J. W. Y., Leung, C. C., & Wong, T. K. S. (2017). Perceptions of collaborative learning in enhancing undergraduate education students' engagement in teaching and learning English. *US-China Education Review*, 7(2), 89-100.

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- Law, Q. P. S., Chung, J. W. Y., Leung, C. C., & Wong, T. K. S. (2017). Collaborative learning enhances social skills among undergraduate students. Proceedings of the *5th International Symposium on Education, Psychology and Social Sciences*, 9-11 May 2017. Kyoto. Japan.

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List of Abbreviations

GNKQ-R	Revised General Nutrition Knowledge Questionnaire
EdUHK	The Education University of Hong Kong
HKIED	The Hong Kong Institute of Education (retitled to The Education University of Hong Kong on May 27 2016)
Mdn	Median
MSLQ	Motivated Strategies for Learning Questionnaire
SSI	Social Skills Inventory
CVI	Content validity index

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Chapter 1: Introduction

This chapter provides an overview of the study background. It begins with the background to the study, problem statements, and the research questions of the first cycle of the action research. The significance of the research is then examined, and this chapter ends with an organization of thesis.

1.1 Background to the study

The Internet changes the world. It has a profound effect on the way we work, live, and learn. It has now become an integral part of the younger generation aged from 15 to 24 with 99.5% in Hong Kong have access to the Internet (Social Security Association, 2013). The use of the Internet can affect a student's academic performance both positively and negatively. Among those people aged 10 and over in Hong Kong, the average time spent in using Internet services per week gradually increased from about 12 hours in 2001 to about 29 hours in 2012 (Social Security Association, 2013). This amounts to not less than 4 hours a day every day in a week. Appropriate use of the Internet can have positive influence on students' academic performance but excessive use will have a significant negative impact on students' daily life. In Kim's study, university students in Hong Kong are likely to be at risk of pathological Internet use. Pathological Internet use is associated with increased social isolation, mood disorders and sleep problems (Kim, Griffiths, Lau, Fong, & Lam, 2013).

The first most common reason for use of the Internet for people aged 10 and over is information searching and the second is the use for communication or interaction (Social Security Association, 2013). Several studies have found that increased time spent on the Internet can lead to negative impact on people's ability to communicate appropriately face-to-face with friends, peers, and family members (Ma, 2011; Neu, 2009; Sisman, Yoruk, & Eleren,

2013). Communicating in the Internet has a de-individuating effect on the individuals involved and produces behavior that is more self-centered than face-to-face communication. The communication mode in the Internet is less socially regulated and has negative effects on social interaction, confidence, and leads to social anxiety and finally loss of real-life social relationships (Bargh & MaKenna, 2004; Brown, 2014; Weinstein, 2015).

The Internet may serve as a ‘coping tool’ for some to escape from problems or stressors. However, students may experience more problems like - delay in doing assignment for using technology, technology causing interruptions while doing assignment, and technology interfering with completing assignment (Gemmill & Peterson, 2006) if they use the Internet excessively. Some studies found that the Internet had a direct positive correlation with decreased amount of sleep, decreased face-to-face interaction, and lower academic performance; and heavy exposure to electronic devices has been associated with less time for reading, decreased verbal literacy and theory of mind skills. Finally, these students might have attention problem that affected their academic learning (Neu, 2009; Anderson, 2001; Ellore, Niranjana, & Brown, 2014).

The current generation of undergraduate students is often dubbed the Net Generation because they are digital natives and are used to interacting with technology (Oblinger & Oblinger, 2005; Tapscott, 1998). As mentioned before, technology has transformed the way we live and for students the way they communicate and learn. The cognitive learning of the Net Generation is “nonlinear, imaginative, multitask, low-organizational, non-logical, likes strong sound and light stimulation” (Hou & Chan, 2011, p.1). The Net Generation is more comfortable using a keyboard and happier reading from a computer screen. They are accustomed to instantaneous text messaging, communication via cell phones. They prefer visuals and graphics rather than reading text in books. In the digital environment, this new generation is good at editing, searching and learning the overloaded Web. Youngsters from this

new generation process information shown in narrative images supplemented with text or symbols. They are active in human interaction within the digital world and build their friendship online. Friendships in the online environment are characterized by a focus on self. The distance in the online environment affords users to neglect manners and may even induce online bullying. This new generation may be the most-socialized peoples in the digital world but is the most-isolated generation in the real world (Black, 2010; Schofield & Honoré, 2010).

The current undergraduate students also belong to Generation Y which refers to people aged 19 to 32. In Hong Kong, according to the Continuing Professional Development Alliance (2014) the Generation Y who were in employ used the words “creative” as the most frequent term and “self-centered” as the second common term to describe themselves; whereas the non-working Generation Y, e.g. those who were studying full-time, used the words “creative” as the most frequent term and “hard-working” as the second common term to describe themselves. The Hong Kong employers, on the other hand, used “self-centered” as the most frequent term to describe the characteristics of the Generation Y. Self-centered persons may be more self-absorbed and care about themselves only. They may not be good at communicating and interacting with others. All these imply that this new generation lacks social skills. Social skills include such interpersonal qualities like cooperation, assertion, responsibility, and empathy that improve interactions between people. According to Farrington and colleagues (2012) five general categories of noncognitive factors that influence academic performance, the social skills category is one of the factors that may affect academic performance. As teaching and learning have strong social, emotional, and academic components, students do not learn alone but rather in collaboration with peers and teachers. A recent meta-analysis of a school-based program showed that there were positive effects from social-emotional interventions on academic achievement (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). It is suggested that social skills increase academic performance as students with good social skills

will participate productively in classroom activities that foster learning.

Students of poor performance or ineffective learning are low in self-efficacy (Bandura, 1986; Pajares, 1996; Pajares, 2003). Self-efficacy is a key element of social cognitive theory. Social cognitive theory is a framework of triadic reciprocity or reciprocal interactions among behavioral, environmental variables and personal factors (Bandura, 1986). Bandura defines self-efficacy as “beliefs in one’s capability to organize and execute the courses of action required to produce given attainments” (Bandura, 1997, p.3). It is the extent of people’s belief in one self’s ability to perform the task or skills. With regard to the interaction of personal factors (self-efficacy) and behavior, individuals’ beliefs in self-efficacy influence their capabilities and engagement in performing a task (Bandura, 1997; Schunk, 2003). There are four primary sources of self-efficacy which include mastery experience, vicarious experience, social persuasion, and physiological states (Bandura, 1997).

Student engagement was discussed in terms of behavioral engagement, cognitive engagement, and motivational engagement (Linnenbrink & Pintrich, 2003). If students are engaged, students demonstrate their effort, persistence, and instrumental help-seeking behaviors. Use of multiple learning strategies and metacognitive activity such as reflection on their own thinking and monitoring their own learning are good indicators of cognitive engagement. The three aspects of motivational engagement are interest, value, and affect. First, personal interest reflects students’ intrinsic interest in task. Second, value beliefs can lead students to choose to engage in task as they think that it is important and is worthwhile. In addition, students’ affective or emotion are important parts of motivational engagement. Positive emotion contributes to students’ motivational engagement (Ouweneel, Schaufeli, & Le Blanc, 2013; Linnenbrink & Pintrich, 2003; Trowler, 2010).

Self-efficacy is positively related to engagement because it leads to more effort in finishing the task. Students of high self-efficacy show willingness to invest effort and

persistence especially in face of difficulties. A large body of evidence suggests that self-efficacy has positive effects on academic performance (Bandura, 1993; Galla et al., 2014; Pajares, 1996; Schunk, 1995). As self-efficacy and engagement are inter-related with reciprocal effect, raising self-efficacy improves academic success and performance. Students low in self-efficacy are low in engagement in learning (Trowler, 2010). To improve students' performance, collaborative learning is one of the teaching approaches for enhancing self-efficacy and engagement in learning.

Collaborative learning refers to an “instruction method in which students at various performance levels work together in small group toward a common goal” (Gokhale, 1995 p. 22). Collaborative learning shifts the responsibility of learning to students who take up the role of self-directed learners. Students work in group and they actively exchange their ideas through use of small group activities with the goal of completing a specific task. Collaborative learning encourages students to develop higher-order thinking skills and enhance individual abilities to master knowledge. Many researchers have reported that students tend to learn more of what is being taught when it is compared with traditional classroom learning (Beckman, 1990; Chickering & Gamson, 1991). Collaborative learning gives students an opportunity to engage in discussion, take responsibility of their own learning. Therefore, collaborative learning is good for the new generation as it contributes to developing social skills and leading towards development of positive attitude among students (Law, So & Chung, 2017). Students' participation in collaborative activities is a social activity (Sultan & Hussain, 2012).

Moreover, collaborative learning helps improve students' self-efficacy because it provides both direct and vicarious experiences to all group members. Findings from empirical research suggested that collaborative learning and students' self-efficacy influenced their academic

performance. According to Igbo, Ikechukwu, and Victoria (2015), they stated that collaborative learning improved academic achievement and self-efficacy.

Smith and colleagues (2009) found that students increased their understanding of genetics concepts from discussion between students even when there was no ‘expert student’ in their discussion group. Students from this study also claimed that the discussion was more productive and they retained the information longer because they had gone through the discussion with better understanding (Stump, Husman, Chung, & Kim, 2011).

This study aspires to explore options for a collaborative learning that would focus on improving undergraduate students’ learning. To do this, the researcher will carry out this collaborative learning and use it to enhance students’ learning and its transferability to other areas of study.

1.2 Problem statement

The Internet brings us convenience and improves our communication beyond geographic boundaries. Despite all the advantages it brings, the Internet might weaken people’s ability to communicate face-to-face with one another. The new generation is used to communicating through machines. Excessive use of the Internet is known to have negative effects on social interactions and can lead to social anxiety that can finally lose real-life social relationships. How best can students learn and develop their social skills in this digital age? Face-to-face communication with other people is a must in our daily life whether it is within one’s social circles, at school, or at work.

Teaching and learning activities at school are predominately done through face-to-face communication and peer interactions. Good social skill is therefore important in learning. We learn by exchanging ideas with others and working collaboratively. If students have good social skills, they can participate productively in classroom activities that help foster learning.

According to social cognitive theory, self-efficacy is important in learning. Self-efficacy is found to be a strong predictor of academic achievement (Bandura, 1997). Moreover, self-efficacy is positively related to engagement. This is because engaged students will exert more effort and energy in completing a task. Self-efficacy affects academic success and performance. Low self-efficacy will lead to low engagement in learning too. To help students better equipped with social skills and self-efficacy, collaborative learning seems to be a good method as it necessitates active exchange of ideas between students and leads to the building up of social skills that facilitate learning.

1.3 Aim of the research

The aim of this action research is to examine the effect of collaborative learning on students' self-efficacy and engagement.

1.4 The research questions to be answered are:

- i. To explore the effect of collaborative learning on students' self-efficacy in learning
- ii. To explore the effect of collaborative learning on students' engagement in learning
- iii. To investigate students' opinions of collaborative learning

The sub-research questions will be elaborated in the different cycles of the action research.

1.5 Hypothesis

In this study, it was hypothesized that students involved in collaborative learning will develop more social skills and self-efficacy that will further improve their engagement in learning. Action research was adopted as the research design of this study. In the first and second cycles of the action research, English was chosen to be the subject of study in the collaborative learning because English is an important language subject at school in Hong

Kong as an international city. In the third cycle, nutrition was chosen to be the subject of study in the last stage of collaborative learning because it was intended to try out the collaborative learning in different area.

1.6 Significance of the research

An immense body of evidence from the previous literature has pointed to the pivotal role of self-efficacy and engagement in facilitating students' learning (Bandura, 1997; Pintrich & Schunk, 1996; Ouweneel et al., 2013; Pintrich & De Groot, 1990; Walker, Greene, & Mansell, 2006; Warwick, 2008; Linnenbrink & Pintrich, 2003). Moreover, findings from empirical research suggested that collaborative learning helps improve students' self-efficacy because it provides both direct and vicarious experiences to all group members and enhances their social interaction in the group. Hence, collaborative learning and students' self-efficacy can effectively influence their academic performance (Rosen & Rimor, 2009; Stump et al., 2011; Gokhale, 1995; Smith et al., 2009). Differing from previous researchers' approaches, this study adopted an action research methodology that used multiple methods of data collection. The qualitative instruments examined undergraduate students' experiences in greater depth, whilst the quantitative ones could supplement and explain the qualitative findings of this study.

Insufficient research has been conducted to investigate the relationship that exists between self-efficacy and collaborative learning. Moreover, most studies were conducted in western countries, this study was the unique cultural contribution to the existing studies. In order to help students increase their self-efficacy so as to enhance their engagement in learning and improve their academic achievement, teachers are obligated to understand how collaborative learning influences students' learning in Hong Kong. It is believed that the findings of this action research can contribute to a more comprehensive understanding of the perceived experiences of undergraduate students in the process of participating in

collaborative learning. The findings would attract teachers' attention towards collaborative learning teaching techniques and help inspire them to foster positive learning experiences for students.

1.7 Organization of the thesis

There are seven chapters in this study. Chapter One provides an overview of the background of the present study. The subsequent chapter examines the extent to which self-efficacy and engagement in learning have been studied and reported and, in particular, how these concepts were used in collaborative learning in tertiary education, the effect of social skills on academic performance, relationship between self-efficacy and engagement, and also the effect of collaborative learning on students' learning effectiveness and the studies about enhancement of students' self-efficacy through adopting collaborative learning based on the concepts reviewed. Chapter Three illustrates the details of the methodology framework, the use of action research in this project and its justifications, the study design and method includes the investigation setting, the participant recruitment process, the data collection procedures, data management, data analysis procedures and methods and the applications of methodological and data triangulation and thematic analysis and the methodological rigor of the study. Chapter Four describes the first cycle of the action research including stage one for clarifying vision and targets, stage two for articulating theory, stage three of implementing action and collecting data and stage four of reflecting on data, planning informed action into second cycle of this action research. Chapter Five examines the second cycle of the action research. The last cycle of the action research is described in Chapter Six. Chapter Seven addresses the study's limitations, implications and recommendations for future research and draws the conclusion of this study.

Chapter 2: Literature review

This literature review aims to examine the extent to which self-efficacy and engagement in learning have been studied and reported and, in particular, how these concepts were used in collaborative learning in tertiary education. To achieve this, past researchers' findings on the effect of social skills on academic performance, relationship between self-efficacy and engagement, and also the effect of collaborative learning on students' learning effectiveness will be investigated and analysed. In the final section of this chapter, studies about enhancement of students' self-efficacy through adopting collaborative learning based on the concepts reviewed will be discussed.

2.1 Introduction

This literature review aims to examine the extent to which self-efficacy and engagement in learning have been studied and reported and, in particular, how these concepts were used in collaborative learning in tertiary education. The search of relevant literature was conducted using iSearch from the EdUHK library. This is a search engine that locates and retrieves resources from the EdUHK library's book catalogue, EBSCO databases with major eResources including Academic Search Premier, CINAHL with Full Text, Journals@Ovid Full Text, JSTOR, Oxford Scholarship Online, Science Direct, SAGE, etc. The search from these databases yielded 684 articles in either English or Chinese covering self-efficacy and engagement, social skills, and collaborative learning. It was evident from the search that literature exploring these topics concurrently was severely lacking.

Previous researchers' findings on the effect of social skills on academic performance, relationship between self-efficacy and engagement, and also the effect of collaborative learning

on students' learning effectiveness will be investigated and analysed. Lastly, studies about enhancement of students' self-efficacy through adopting collaborative learning based on the concepts reviewed will be discussed in the following sections.

2.2 Social Skills

A number of authors have defined social skills (Caldarella & Merrell, 1997; Gersham, Sugar, & Horner, 2001; Lynch & Simpson, 2010; McFall, 1982). McFall (1982) reviewed two conceptual models of social skills and suggested definitions for each of the models. According to McFall, social skill is most commonly defined as a “hypothetical personality trait or a general response predisposition” (McFall, 1982, p.2). Social skills refer to a personal trait-like characteristic. Social skills cannot be observed directly. However, a person's behavior in interpersonal contacts can be observed and it reflects the person's social skills abilities. The assumption of this trait-like conception of social skills is that the performance of a person's social skills will be sensibly maintained over time and reasonably stable across different situations. A less commonly used definition, as per McFall (1982), treats social skills as distinct situation-specific responses and it is not related to the underlying personality-trait. Social skills under this definition refer to a molecular-behavioral conception. The assumption of this molecular-behavioral conception is that social skills are viewed as learned behaviors in specific situations. The performance of a person's social skills may change across time and is unstable across different situations.

Some authors attributed similar terms or meanings to social skills or social competence (Caldarella & Merrell, 1997; Gersham et al., 2001; Lynch & Simpson, 2010). Social skills are competent behaviors performed by a person in particular social situations (Gersham et al., 2001). Lynch and Simpson viewed social skills as the skills that a person can positively interact with other people and the surrounding environment. If people are equipped with social skills, they

demonstrate these behaviors by showing empathy, actively participating in groups, showing kindness, increasing helpfulness, communicating more with others, collaboratively negotiating and solving problems (Lynch & Simpson, 2010).

An important distinction between social skills and social competence is the evaluation or judgement of social tasks by the significant others, e.g., teachers, parents and peers in social competence. Moreover, these judgements may be based on the criteria of some social agents or pre-established criteria in comparison with normative samples (Gersham et al., 2001).

Caldarella and Merrell (1997) derived a taxonomy of social skills that included five different dimensions, namely, peer relations skills, self-management skills, academic skills, compliance skills, and assertion skills. This taxonomy is useful in the classification of typical social skill patterns. Moreover, it is used to design interventions in teaching and to evaluate outcomes of intervention. Lastly, it is a guide for the development of theories related to the causes, prognosis, and responsiveness of students in social skill intervention.

Riggio (1986), on the other hand, proposed a conceptual framework for defining and assessing basic social skills. Riggio proposed that basic social skills had two components: expressivity and sensitivity. These two represented the skills in sending and receiving information. Apart from verbal social skills, the non-verbal social skills are the ability in sending and receiving emotions in communication with others. Riggio believed that social skills are connected with control over communication. Thus, in Riggio's framework, social skills had seven dimensions, namely, emotional expressivity, emotional sensitivity, social expressivity, social sensitivity, emotional control, social control, and social manipulation. Emotional expressivity refers to people's skills in communicating affect, attitudes and status. Emotional sensitivity refers to people's ability to understand others' emotions, beliefs, or attitudes, and to discover the cues of status-dominance. Social expressivity includes peoples' skill in expressing verbally fluency and the ability to start the conversations. Social sensitivity is related to the ability to understand and

respond to verbal messages and this sensitivity is a vital component of social rules and norms. Emotional control refers to people's ability to control emotional communications and nonverbal displays. Social control refers to people's ability in role-playing, skills in regulation of verbal behavior and presentation of one-self. Social manipulation refers to people's attitude or orientation to manipulate others during communication. On the basis of these seven dimensions, Riggio (2002) further developed a social skills inventory.

Several other authors did provide detailed information about social skills (Caldarella & Merrell, 1997; Gersham et al., 2001; Lynch & Simpson, 2010; McFall, 1982). Riggio's (1986) framework of social skills, nevertheless, is the most structured one that explicates the meaning of social skills. Social skills indeed are more comprehensively illustrated by considering both verbal and nonverbal displays and communication. And it is more appropriate to include social and emotional components. The reason for adopting Riggio's framework of social skills is because it is more frequently used and is easy to explain the underlying meaning of social skills.

There are four main methods to collect data on social skills (McFall, 1982). The commonly used one is paper-and-pencil self-report which is most suited for classroom use. The second method is to use behavioral role-playing tests. The third one is through observations of quasi-naturalistic performance and the last one is to have ratings by significant others (McFall, 1982).

Social skills play an important role in schools, work, and life. Previous literature showed that social skills have been linked to academic performance in primary grades (Denham & Brown, 2010; Cooper, Moore, Powers, Cleveland, & Greenberg, 2014; Steedly, Schwartz, Levin, & Luke, 2008; Gresham & Elliott, 1990; Malecki & Elliott, 2002). However, the effect of social skills on academic performance is still unclear. Most recent studies investigated a broader view on social and emotional skills. Savitz-Romer, Rowan-Kenyon, and Fancsali (2015) studied how colleges and universities, as well as employers, used non-cognitive skill building to promote career success by implementing social and emotional skills programs to tertiary students in colleges and

universities. Savitz-Romer et al. grouped these social and emotional skills and behaviors into three conceptual categories: an approach to learning and work, interpersonal skills, and social skills. The survey from Savitz-Romer et al. found that social, emotional, and affective factors are critical to academic and career success and this result has driven the development of programs and practices to promote those skills. Davis, Solberg, De Baca, and Gore (2014) evaluated the social emotional learning skills of a sample of 4,797 high school students from a large urban school district to predict their future academic success and progress toward graduation. The study found that students with lowest 25% of reported grades had lower social emotional skills than students classified as top 25% of academic performers by the end of the eighth grade. The result found five social emotional learning subscales (self-efficacy, academic motivation, social connections, importance of school, and managing psychological and emotional distress and academic stress) that effectively discriminated between students who made positive progress towards high school graduation. Another meta-analysis study (Durlak, Weissberf, Dymnicki, Taylor, & Schellinger, 2011) reviewed 213 school-based social and emotional learning programs involving 270,034 kindergarten through high school students. Durlak et al., (2011) concluded that social and emotional learning programs had significantly improved participants' social and emotional skills, attitudes, behavior and academic performance. However, Durlak and his colleagues were not able to disentangle the effect of "social skills" from social emotional skills. The effects on academic performance might not be directly brought by students' behaviors in the classroom. The academic performance could have been developed by the students' competencies in other areas such as self-awareness, self-management, responsible decision-making, etc. Therefore, social skills may improve learning by enhancement of social interaction between peers and teachers or by reduction of disturbances in class (Farrington et al., 2012). Although there has been limited research showing a causal effect between social skills and academic performance, it is likely that the two are mutually reinforcing. Good social skill is therefore important in

learning. If students have good social skills, they can participate productively in classroom activities that help foster learning and hence improve academic performance.

2.3 Self-efficacy Beliefs

The concept of self-efficacy originated from Albert Bandura's social cognitive theory. Bandura was the first scholar to present the idea of self-efficacy in 1977. He started his work of self-efficacy in the psychology field. The study "Self-efficacy: Toward a Unifying Theory of Behavioral Change", presented a theoretical framework that explains the psychological procedures which alter the level and strength of self-efficacy (Bandura, 1977). In the same year, Bandura and Adams reported the findings of two experimental tests of the self-efficacy theory of behavioral change. The findings proved that self-efficacy was a predictor of behavioral improvement, mastery of threats in different phases of psychological treatments, in patients with chronic snake phobias (Bandura & Adams, 1977). Bandura (1986) further applied self-efficacy in education in 1986. Social cognitive theory is a learning theory. This theory explains the triadic reciprocal causation between personal, behavioral and environmental factors. Bandura analyzed one learns by observing fellow learners with self-efficacy. Bandura defined self-efficacy as "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391). Self-efficacy refers to people's belief in their abilities in performing specific tasks. Bandura (1986) further elaborated on two aspects of the definition of self-efficacy. The first aspect is that self-efficacy is not the actual ability to do a task. Another important aspect is that self-efficacy is task or context specific. People who have low self-efficacy in performing Task A may not necessarily have low self-efficacy in performing Task B.

Bandura (1995) postulated that there are four sources of influence in people's self-efficacy beliefs. Mastery experiences are based on people's prior experiences toward a specific task. If

people have successful experiences in performing a specific task, they are more likely to have higher self-efficacy in that task. Nevertheless, if people fail in performing that task, they will have lower self-efficacy regarding the abilities to complete that task. The second source is vicarious experiences. Vicarious experiences are learning acquired by people through observing. Self-efficacy can be gained by social modelling (Bandura, 1995). Higher self-efficacy was perceived by observing peer models in Schunk, Hanson, and Cox's experiments. There were two types of peer models, mastery model or coping model. Children was assigned to observe either mastery model that was demonstrating rapid acquisition of fraction skills or coping model that was demonstrating gradual acquisition of fraction skills. In their studies, the children demonstrated higher self-efficacy, skill, and training performance when they observed the single coping model, multiple coping model and multiple mastery model of their peers than children who observed a single mastery model only.

Children judged themselves as having attained similar competence when they compared themselves to the peers even though they did not perform the tasks and did not know whether they could perform or not (Schunk, Hanson, & Cox, 1987). The third source is social persuasion. People may perceive higher self-efficacy when they get encouragement from the significant others such as parents, teachers or peers. Likewise, people may have low self-efficacy when they face discouragement from the significant others (Bandura, 1995). The last source of self-efficacy is people's physiological and emotional states. Physiological states and emotional states such as stress and tension may affect people's performances. Mood affects people's judgments of their ability to finish tasks (Bandura, 1995). In later study in 1997, Bandura's study proved that mastery experiences were the most powerful source of self-efficacy (Bandura, 1997). In one meta-analysis study conducted by Boyer and his colleagues, they stated that moderate to high positive effect size was obtained when self-efficacy was altered by mastery experiences (0.75), modeling (1.02) or verbal persuasion (0.40) (as cited in Bandura, 2012). Vicarious experiences,

on the other hand, become a powerful source of self-efficacy when people are uncertain of their abilities or when they have limited experiences on a task. Apart from vicarious experiences, correlations of self-efficacy and social persuasions were found in Usher and Pajares' review with the range from -0.06 to 0.62 (Usher & Pajares, 2008). Bates and Khasawneh's study (2007) supported the correlation between instructors' feedback and students' self-efficacy. Students who receive prompt instruction and feedback from instructor about their performance using online learning technology had higher self-efficacy and mastery in completing online assignments than those students who did not receive feedback from instructor. Britner & Pajares (2006) found that there was strong influence of science teacher's mastery experiences on self-efficacy to support their students in developing self-efficacy beliefs. Moreover, vicarious experiences, social persuasions and physiological arousal were significantly correlated with self-efficacy.

However, in some studies, the correlation of self-efficacy and the sources of self-efficacy was not established (Matsui, Matsui, & Ohnishi, 1990; Hampton & Mason, 2003; Usher & Pajares, 2006). Usher and Pajares (2008) explained in their review that the failure to find correlation between the sources of self-efficacy and self-efficacy was because of the problems in the design of research methodologies, the choices of instrument and the contextual issues in related studies.

Self-efficacy is domain specific. Bandura pointed out that "the construction of sound efficacy scales relies on a good conceptual analysis of the relevant domain of functioning. Knowledge of the activity domain specifies which aspects of personal efficacy should be measured" (Bandura, 2006, p. 310). Therefore, the measurement of self-efficacy is not to produce a single all-purpose coefficient. Usher and Pajares (2008) also addressed that it is not possible to measure an overall academic self-efficacy, but rather to measure the self-efficacy for individual academic subjects. Bandura had done a review of Maurer and Andrews's assessment of self-efficacy. Maurer and Andrews (2000) advocated a unipolar rating scale of self-efficacy ranging from 1 (strongly

disagree), 3 (neither agree nor disagree) to 5 (strongly agree). Bandura (2012) queried the rating scale as he was of the view that it was meaningless to set a neutral level (level 3 with neither agree nor disagree) of self-efficacy that distorted the meaning of self-efficacy. Other authors created a new general self-efficacy scale with only eight-item to measure general self-efficacy that “captures differences among individuals in their tendency to view themselves as capable of meeting task demands in a broad array of contexts” (Chen, Gully, & Eden, 2001, p. 63). Bandura opined that a statement of intention should not be included in Chen et al.’s eight-item self-efficacy scale to measure trait self-efficacy and this trait measure had problems of predictiveness and was weak in relation to domain-related self-efficacy. All in all, the scope of self-efficacy assessment and the domain-related self-efficacy should be relevant to the individual’s “sphere of activity” (Bandura, 2012, p.17).

Numerous studies have been performed to ascertain self-efficacy in different fields including psychology, sociology, medicine, education, and even in vocation (Hall, Chai, & Albrecht, 2016; Holund, 1990; Lent, Lopez, & Bieschke, 1991; Wolters & Pintrich, 1998; Wright, Perrone-McGovern, Boo, & White, 2014). This study focused on English language learning and nutrition education. The following sections are reviews of the empirical research that are related to self-efficacy in the academic domains of foreign language and nutrition.

There has been a growing interest in studying self-efficacy within the field of foreign language learning. Most previous studies of foreign language were related to the English language. Raoofi, Tan, and Chan (2012) reviewed the empirical literature of self-efficacy in language learning contexts from 2003 to 2012. The majority (27 out of 34) of their selected studies were in the context of English. Three identified themes, ‘effects of self-efficacy’, ‘effects of self-efficacy on affective domain’ and ‘factors affecting self-efficacy’ were found; twenty of the studies examined the relationship between self-efficacy and performance, or the affective domain; and the rest of them studied factors affecting learners’ self-efficacy within the context

of a foreign language and investigated the strategies on self-efficacy or strategy training. Most findings confirmed that self-efficacy strongly predicted the performance in a foreign language including reading, listening, speaking, and writing of the language (Mills, Pajares, & Herron, 2006; Pajares, 2003; Mills, Pajares, & Herron, 2007; Rahimi & Abedini, 2009; Magogwe & Oliver, 2007).

There were a limited number of articles that investigated the effect of self-efficacy on affective domain in learning a foreign language (Erkan & Saban, 2011; Pintrich & De Groot, 1990; Pajares, 2003; Tuncer & Dogan, 2016). The results of these studies were controversial. Writing apprehension and writing attitude were supposed to be negatively correlated. However, Erkan and Saban's study found that there was a significant positive correlation between apprehension and attitude towards writing (Erkan & Saban, 2011). A student's self-efficacy in French was negatively associated with reading and writing anxiety in Mills, Pajares, and Herron's study (2007). On the other hand, self-efficacy in listening proficiency of French was negatively associated with anxiety in both males and females.

Only several studies were found to investigate factors like strategies, styles and contextual variables that affect a learner's self-efficacy in foreign language context (Magogwe & Oliver, 2007; Raoofi et al., 2012; Bonyadi, Nikou, & Shahbaz, 2012; Yilmaz, 2010). Unlike before, the studies showed consistently that the use of strategies was significantly related to a learner's self-efficacy in foreign language context (Magogwe & Oliver, 2007; Bonyadi et al., 2012; Yilmaz, 2010). A very limited number of studies investigated the sources of self-efficacy and the development of self-efficacy beliefs of the foreign language. In 2009, Cakir and Alici's (2009) study examined some sources of self-efficacy such as past successful experiences and social persuasions and their effect on perceived self-efficacy. This study indicated that mastery experiences and verbal persuasions seemed to be important factors which affect the personal efficacy beliefs of the student teachers.

After investigating the English subject area, a collaborative learning on diet and disease in a classroom setting was carried out. This last part of the study was used to test out self-efficacy in the domain of nutrition education. The literature regarding students' self-efficacy beliefs in the domain of nutrition education is at best few and at worst scant. Scholars who studied various phenomena within the field of nutrition often relied on the results of the medical field and there were only relatively few investigations on self-efficacy. Some studies evaluated the impact of a health education program on a group of adolescents' knowledge of sugar and nutrition and their beliefs about susceptibility and self-efficacy in nutrition knowledge (Holund, 1990). Another recent study was about the relationships between nutrition-related knowledge, self-efficacy and behavior of primary students (Hall et al., 2016). Based on the review, it can be concluded that self-efficacy is one of the most influential factors in learning. Limited studies in the nutrition field were found.

In addition to foreign language study and nutrition education, there was previous self-efficacy research focused on linking efficacy beliefs to other academic subjects too. These included subjects such as social studies, physical education, mathematics, and statistics. Findings from the previous research supported that mathematics self-efficacy predicted the interest in learning mathematics and science-based career choice (Lent, et al., 1991; Wolters & Pintrich, 1998). Other studies focused on linking efficacy beliefs to career self-efficacy and career choices (Wright et al., 2014). Some studies explored the relationships between self-efficacy and respective other psychological constructs and academic achievement, and found that academic self-efficacy predicted academic performance (Andrew, 1998; Hwang, Choi, Lee, Culver, & Hutchison, 2016; Multon, Brown, & Leni, 1991). Academic self-efficacy showed its influences on self-regulatory processes such as goal setting, self-monitoring, self-evaluation and strategy use in learning (Wolters & Pintrich, 1998; Yilmaz, 2010; Zimmerman, 1990; Zimmermann & Cleary, 2006). In regard to the strategies for enhancing self-efficacy, intervention studies for

enhancing self-efficacy were severely scant in education field. A majority of intervention studies for enhancing self-efficacy were conducted in medical and nursing fields (Barkoukis, Koidou, & Tsorbatzoudis, 2010; Baxter & Thomson, 2012; Buckley, 2014; Cordle, 2015; Martin, Ma, Scioli-Salter, & Mitchell, 2015; Middelkamp, Rooijen, Wolfhagen, & Steenbergen, 2016; Tang et al., 2015; Wu, Hu, McCoy, & Efird, 2014).

There were few studies related to the negative effect of self-efficacy to motivation and performance in learning (Yeo & Neal, 2006; Vancouver & Kendall, 2006; Vancouver, More, & Yoder, 2008; Vancouver, Thompson, Tischner, & Putka, 2002; Vancouver, Thompson, & Williams, 2001). Vancouver et al. (2001 & 2002) tried to use analytic game to test out self-efficacy and performance. The result found that self-efficacy led to overconfidence and hence increased the likelihood of logic errors during the game. However, Vancouver et al.'s evaluation of self-efficacy was deficient because their study only assessed self-efficacy by asking two questions (asking participants to identify how many attempts or rows they thought it would take them before they found the solution for the next trial and asking participants how likely they were to find the solution to the next trial by the row). The assessment might lead to potential errors or bias in their study results. Vancouver and Kendall (2006) found that self-efficacy was negatively related to motivation and performance in examination at the within-person level of analysis and self-efficacy got a significant relation with performance at the between-persons level. Again, Vancouver and Kendall's study was deficient in the assessment of self-efficacy as they asked participants to rate self-efficacy for one time only, without assessing the changes of self-efficacy. Yeo and Neal (2006) used a constricted range in a self-efficacy assessment. They used a low-fidelity conflict recognition task from air traffic to examine the relationship between self-efficacy and performance. Participants were asked to perform this task for one time only and the performance was assessed. In summary, the results of these studies concerning the negative effects of people's beliefs in their capabilities may be misleading. Most of these studies had

methodological deficiencies in the evaluation of self-efficacy and the use of inappropriate tasks in assessments.

Based on the review, it can be concluded that self-efficacy is one of the most influential factors in learning. Effective teachers need to help students gain self-efficacy in learning. It is worthwhile to examine more by applying interventions to enhance students' self-efficacy. In this study, it was intended to examine the effect of collaborative learning in enhancing undergraduate students' self-efficacy and engagement. Moreover, it is worthwhile to explore more by conducting qualitative research to investigate the construct of self-efficacy among students in order to gain an in-depth understanding of the perceived self-efficacy of students in different contexts, like nutrition education and English learning in this study. The next section was about the literature review of engagement.

2.4 Engagement in Learning

Academic engagement has three constructs which are behavioral, cognitive and motivational engagement (Linnenbrink & Pintrich, 2003). Other authors defined engagement in a multifaceted manner as behavioral engagement, emotional engagement and cognitive engagement (Fredricks, Blumenfeld, & Paris, 2004; Skinner & Belmont, 1993).

Fredricks et al. (2004) argued that behavioral engagement entails positive learning behaviors such as obeying the rules and following the norms, in addition to the absence of destructive learning behaviors such as missing school and making trouble in the classroom. Moreover, Fredrick's group stated that behavioral engagement that contributed to positive learning included students' willingness to make efforts, persistence to academic tasks, paying attention, and involvement in class discussions. Participation in school-related activities was also considered as important in behavioral engagement. Nonetheless, Finn (1989) has different views in participation. He divided participation into four levels ranging from the lowest level such as

responding to teachers' questions to the highest level such as student government. Linnenbrink and Pintrich (2003) stated that behavioral engagement involves some observable behaviors. Students were more engaged when they showed more effort, persistence to the tasks and help-seeking behavior. Sometimes, help-seeking behavior alone is not a good indicator of behavioral engagement. If students are seeking help from peers or teachers in order to understand the materials better, this is a good indicator and this is instrumental help-seeking behavior. Students are said to be engaged when they show positive behaviors such as class participation, attendance, task completion and effort (Fredricks et al., 2011; Miller, Greene, Montalvo, Ravindran, & Nichols, 1996).

Fredricks and his colleagues (2011) after reviewing various literatures on cognitive engagement summed up cognitive engagement into two themes. They found some authors highlighted cognitive engagement as investment of time in thinking about learning whereas others targeted cognitive engagement as learning using strategic skills. When students are cognitively engaged, they demonstrate the use of metacognitive strategies to plan, monitor or evaluate their learning (Pintrich & De Groot, 1990; Zimmerman, 1990). Therefore, students who are cognitively engaged display a deeper level of learning by paraphrasing or summarizing materials or organizing knowledge with concept maps or outlines. Students demonstrate effort in tasks when they are being engaged cognitively. Students are cognitively engaged if they monitor and regulate their learning by reflecting on their own thinking, actions and behavior (Linnenbrink & Pintrich, 2003). The term "effort" is used in both cognitive and behavioral engagement and one should not be confused with the two (Fredricks et al., 2004). Some researchers used mental efforts to define cognitive engagement as one that students used efforts to strengthen learning and performances mentally (Wang, Chen, & Anderson, 2016). When assessing student efforts, we need to explore in depth to distinguish behaviors in showing effort or mental effort in cognitive engagement.

According to Fredricks and his colleagues (2011), emotional engagement refers to students' positive and negative affective reactions towards teachers, peers, content of the subjects in schools. The positive affective reaction includes feeling interest, optimism, passion and curiosity to learn. The negative affective reaction includes feeling boredom, unhappiness, and anxiety in learning (Skinner & Belmont, 1993). Motivational engagement from Linnenbrink and Pintrich stated similar characteristics in terms of students' interest, value and affect. Interest is a motivational variable and is defined as a psychological state of repeated to engage or engaging or participate with specific classes of objects, events, or ideas over a period of time. The affective component of interest refers to positive emotions accompanying engagement (Hidi & Renninger, 2006). People who feel interest in an activity are more engaged in it. Ainley, Hidi, and Berndorff's (2002) study suggested that interest is an important component in engagement. Engagement is associated with positive affect. People like performing a certain task feel more interest, and then they are more persistent with the task and they tend to learn more.

Eccles and his colleagues (1983) studied task values in motivational literature and elaborated that task values have four major components which are known as attainment value or importance, intrinsic or interest value, utility value or usefulness of the task, and cost. Attainment value refers to the perceived importance of performing a task. Intrinsic or interest value is related to the enjoyment of engaging in a task or activity. Utility value refers to how a task fulfills a person's future goal. Cost refers to things, for example, time and efforts given up in performing a task, which is the negative aspect of engaging in an activity or task. Both positive and negative affects are linked to students' learning and achievement. High levels of anxiety will negatively affect learning (Linnenbrink & Pintrich, 2003). Emotions provide both fuel and guidance for students' behaviors. Emotions act as markers of motivational resources for checking the quality of students' participation and coping or whether students are at risk of burnout (Skinner, Pitzer, & Brule, 2014).

Engagement is associated with positive academic outcomes and prevention of high student dropout rates (Fredricks et al., 2004). One recent study was conducted to evaluate the academic performance of 578 middle and high school students by analyzing their engagement, academic self-efficacy and academic motivation. This study confirmed that cognitive engagement predicted academic performance (Dogan, 2015). Moreover, levels of academic performance were predicted by students' levels of engagement. Fredricks and his colleagues' study showed an association between higher levels of engagement and higher proficiency in academic pursuit. In order to address student engagement, we not only need to understand how engagement has been defined but also how it is measured. One recent report reviewed 21 instruments that measured the psychometric properties of student engagement. These instruments included 14 student self-reports, three teacher reports on students and four observational measures. Self-report instruments were most commonly used to assess behavioral, emotional and cognitive engagement. However, items used to measure behavioral, emotional and cognitive engagement were inconsistent across the instruments. Some instruments were multi-dimensional, whereas others were either bidimensional or unidimensional. Motivated Strategies for Learning Questionnaire (MSLQ) was one of the instruments used in this action research. MSLQ has been used in correlational studies examining relationships between motivation, use of learning strategies and achievement (Pintrich & De Groot, 1990; Wolters & Pintrich, 1998). It is used as an outcome measure in examining impacts of different aspects of instructional strategies, course structures and intervention (Duncan & McKeachie, 2005; Hsieh, 2014).

In summary, engagement is associated with positive academic achievement. Gaps are identified in the definitions, measures and design of engagement measures. They do not capitalize on what a multi-dimensional conceptualization of engagement can offer. Moreover, very few current literatures shed light on the development of engagement and there has been a limited use of observational, multi-method or qualitative studies in engagement studies. Qualitative approach

is suited for researchers who intend to understand the engagement process and the meaning of the construct in great depth. The next section was about the relationship between self-efficacy and engagement in learning.

2.5 Self-efficacy and engagement

Self-efficacy has been found to relate to the amount of effort and the willingness to persist in a task or activity (Bandura, 1997; Dogan, 2015; Linnenbrink & Pintrich, 2003; Ouweneel et al., 2013; Pintrich & Schunk, 1996; Walker et al., 2006; Warwick, 2008). There was a positive association between self-efficacy beliefs and behavioral engagement of students in terms of the amount of effort and persistence at a task (Bandura, 1997; Pintrich & Schunk, 1996). Ouweneel and his colleagues' study (2013) showed that self-efficacy was positively related to engagement. The possible explanations were students' self-efficacy leads to greater willingness to put more energy and effort in completing a task. In Pintrich and De Groot's (1990) study, it was found that students with higher efficacy used more strategies in self-regulatory or metacognitive skills to promote learning. Other authors found correlation between self-efficacy and cognitive strategy and self-regulatory strategy use (Walker et al., 2006). Self-efficacy is related to motivational constructs including personal interest and values (Pintrich & Schunk, 1996). Bandura suggested that individuals developed firstly a sense of efficacy at an activity and from this they develop both interest and value (Bandura, 1997). Once students feel personal interest and utility in a subject they are motivated to engage in learning that subject. There are clear links between self-efficacy and motivational engagement, but there are some debates over the cause-effect relationship between self-efficacy and motivational engagement (Walker et al., 2006; Warwick, 2008).

Linnenbrink and Pintrich (2003) discussed a general framework for self-efficacy, engagement and learning. This framework explained how self-efficacy was related to student

engagement, in terms of behavioral, cognitive and motivational engagement. They stated that the three components of engagement are correlated. Therefore, if students are cognitively and motivationally engaged, the behaviors are likely to be engaged. Linnenbrink and Pintrich stated that self-efficacy led to improvement in engagement which in turn led to improvement in learning and achievement. Moreover, the direction of cause and effect relationship also flowed back to self-efficacy reinforcing it over time. Self-efficacy may have both a direct and an indirect effect on behavior. However, this study only explicated the general framework to understand self-efficacy, engagement and learning. Linnenbrink and Pintrich did not further investigate and develop interventions to ascertain the cause and effect relationship between self-efficacy and engagement. Self-efficacy enhances effort, persistence and eventually achievement in academic pursuit. Pintrich and DeGroot (1990) suggested that self-efficacy improves cognitive engagement. The reason for better achievement is that students use more cognitive strategies in learning. Dogan (2015) tried to evaluate the multiple correlation between self-efficacy, engagement and academic result. However, the result showed self-efficacy and academic motivation did predict academic performance but not for emotional and behavioral engagement. Apart from Dogan (2015), Warwick (2008) and Ouweneel et al. (2013) tried to put these two variables together in their respective investigations. Warwick (2008) experimented with curriculum design principles to build in components of engagement. Although Warwick mentioned about the learning loop between self-efficacy and engagement, his study did not have an intervention. He only focused on the investigation of motivational engagement by asking three questions in the interview with his students. As regards Ouweneel et al.'s (2013) study, they investigated the effect of changes in self-efficacy over time towards changes in engagement and performance. However, this study was not an interventional study. This study has the limitation of the lack of the students' original self-efficacy levels. These factors could potentially have affected the relationships between self-efficacy and the outcome variables of engagement and performance.

Figure 2.1 illustrates the conceptual framework of self-efficacy, engagement and learning used in this study. Self-efficacy comes from four different sources, namely mastery experiences, vicarious experiences, verbal persuasion and physiological states. It connects sources of self-efficacy and explains how self-efficacy was related to student engagement, in terms of behavioral, cognitive and motivational engagement. Self-efficacy improved engagement which in turn improved learning and achievement. Moreover, the direction of cause and effect relationship also fed back to self-efficacy, thus reinforcing it over time (Bandura, 1986; Linnenbrink & Pintrich, 2003).

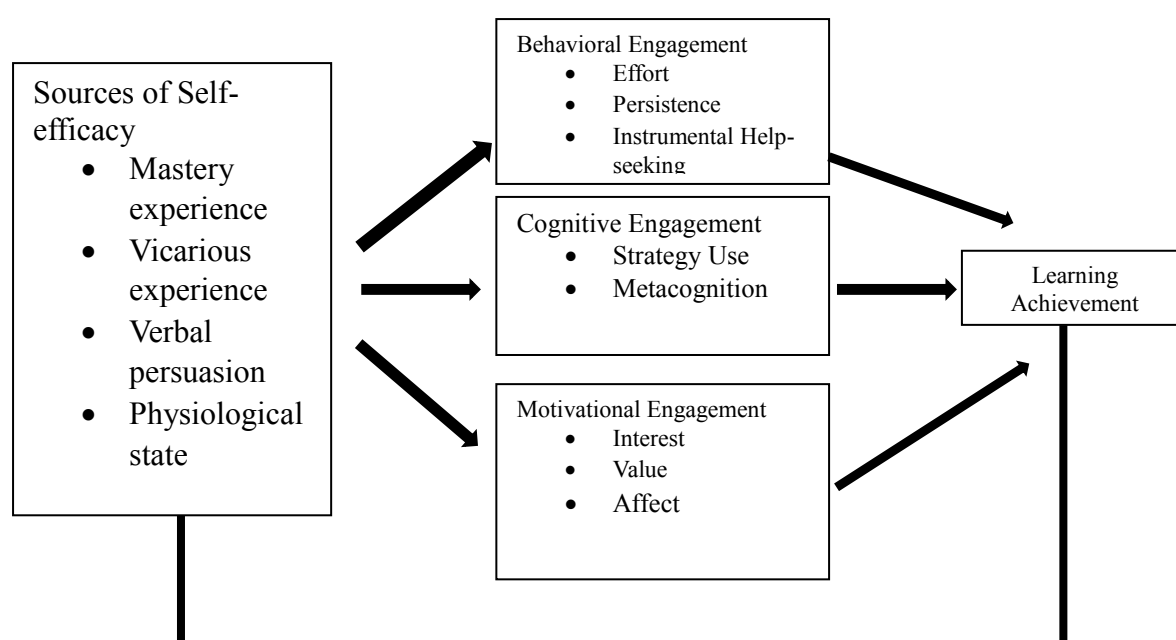


Figure 2.1 Conceptual framework of first cycle of action research. Bandura postulated that there are four sources of influence in people's self-efficacy beliefs. These four sources are mastery experiences, vicarious experience, verbal persuasion and physiological states (Bandura, 1986). Adapted from "General framework for self-efficacy, engagement and learning," by Linnenbrink, E. A., & Pintrich, P. R, 2003, *Reading & Writing Quarterly: Overcoming Learning Difficulties*, 19(2), 122. Copyright 2003 by Taylor & Francis.

2.6 Collaborative Learning

How to engage students actively in class? This question has been discussed for decades in the education field. What is 'collaborate'? According to the Online Oxford Dictionaries, the word "collaborate" originated in the late nineteenth century from the Latin word "*collaborat*—"

which means ‘worked with’ and from the verb *collaborare*, which can be broken down into *col-* ‘together’ and the verb *laborare-* ‘to work’. The whole meaning of ‘collaborate’ is to work jointly on an activity or project (Oxford Dictionaries, 2016). Collaborative learning is broadly viewed as a variety of educational approaches involving group efforts in intellectual exchanges with students, or students and teachers together. Usually, students are working in groups of two or more, mutually searching for understanding, solutions, or meanings, or creating a product. Collaborative learning activities can be in different forms, but the vital distinction is in their group exploration or application of course material, not just simply presentation or explication by the students (Smith & MacGregor, 1992). Earlier in 1973, Bruffee who was Associate Professor of English and Director of the Freshman Writing Program at Brooklyn College started to use collaborative learning in students’ writing classes. At that time (in 1972), Officials of New York State Department of Education said they were studying a new method for teaching reading which helped raise students’ reading scores in 1970. Students were helping teach their younger brothers and sisters and slow youngsters in learning groups being assisted by the faster pupils (Bruffee, 1973). Bruffee believed that if young children were capable of collaborating in learning, adults and adolescents should be capable of doing it too. He then developed the “collaborative-learning convention”, that was to design class structures and guidelines of collaborative learning for teachers (Bruffee, 1973, p. 638).

A few years later in his study of collaborative writing, Gebhardt (1980) argued that peer influence is nothing without feedback. He argued that the concept of feedback in most collaborative discussion was narrow and too little consideration was given to the emotional isolation of students in collaborative writing. In Gebhardt’s opinion, collaborative learning was only appropriate for the inexperienced and self-doubting writers and was only appropriate in the early stages of writing. Bruffee (1981) disagreed and explicated that collaborative learning affects the emotional element in learning contextually through the social context of influence from peers

and this element cannot be imparted through teachers' conscious application of pedagogical or psychological techniques. This is why counselling and sensitivity training techniques are largely superfluous in collaborative learning. According to Bruffee, American teachers showed interest in using collaborative learning in the 1980s. Bruffee (1984) stated that collaborative learning was coined in the 1950s and developed in the 1960s by a group of British secondary school teachers and a biologist studying British post-graduate medical education. He was of the view that collaborative learning provides a social context in which students can experience and practice the kinds of conversation valued by college teachers.

Wiener (1986), on the other hand, tried to move forward by developing appropriate collaborative teaching models, a temporary set of guidelines for observers and roles of teachers in collaborative learning. Wiener specified a teacher's roles in collaborative learning as task setter, classroom manager, group management and synthesizer (Weiner, 1986). Bruffee (1987) further elaborated that a degree of autonomy is important in collaborative learning. Teachers are recommended to step back from the groups of working students. After setting a task, students are to work in groups on their own to interpret and finish the task. Goodsell, Maher, and Tinto (1992) developed a sourcebook of collaborative learning in higher education in 1992. This sourcebook addressed what collaborative learning is, how it is implemented, how it is assessed and where it is used.

Unfortunately, many educators were confused with the two terms "cooperative" and "collaborative" learning. In fact, these two are methods that differ in definition, philosophy and approach. Bruffee suggested that cooperative and collaborative learning had some important differences (Bruffee, 1993). Matthews, Cooper, Davidson, and Hawkes (1995) also commented that collaborative and cooperative learning had significant differences among adherents, while there were some overlaps between these two approaches. Cooperative learning tends to be more structured for small group instruction classes and teachers' roles are different. Teachers have to

give more detailed advice and direct training to students in the cooperative learning approach (Matthews et al., 1995). Theodore (1999) argued cooperative learning is very similar to collaborative learning, with the exception that cooperative learning introduces a more structured setting and the teacher takes total control of the learning environment. Moreover, Davidson and Major (2014) drew the boundary between cooperative learning and collaborative learning. They put forward that cooperative learning nurtures interdependence through goals, tasks, resources, roles, and rewards, while collaborative learning employs only goals, tasks and sometimes limited resources to nurture interdependence. Student grouping is different too. In collaborative learning a teacher never forces a student into a group; however, in cooperative learning a teacher does assign students into groups. Moreover, collaborative learning groups are self-managed while teachers in cooperative learning take control and use group methods or structured procedures to teach students.

Collaborative learning was rooted in three theoretical frameworks - cognitive development theory, social interdependence theory and behavioral learning theory. Cognitive development theory has its origins in Piaget (1995) and Vygotsky (1978). Vygotsky's (1978) cognitive development theory is the most significant contribution to theories of child's process of cognitive development. Vygotsky believed social interactions are important for children's learning. Learning is facilitated by interaction between peers such as verbal discussions and observation of peers. The social interactions let students understand what they observe. Copying and internalizing help students learn. While Piaget's focus upon the development of cognition is the construction of knowledge, he suggested that social relations play an important role in human's developmental process. These social relations can be divided into two types: the relations of constraint and the relations of cooperation. The relations of constraint are characterized by an inequality in the balance of authority between peoples. In contrast, the relations of cooperation are characterized by an equal balance of authority between peoples.

People are free to discuss, debate and exchange ideas in the absence of an authority figure. Relations of cooperation permit the growth of mutually constructed development. The relations of constraint usually are characterized in adult-child relations or teacher-student relations. The relations of cooperation are usually characterized in peers relations (Piaget, 1995). Therefore, students feel more freedom to work with peers and to construct knowledge together with peers. Smith and MacGregor stated that learning is the outcome of social interaction. Smith and MacGregor (1992) developed assumptions about learning: Learning is an active constructive process which depends on rich context, which is inherently social, which is best for diverse learners, and which has affective and subjective dimensions. There is a shift away from the typical teacher-centered instructions to student-centered interactions in collaborative learning. Collaborative learning is socially and intellectually involving. Students are working in groups of two or more, mutually participating in the process and working toward goals tasks.

The history of social interdependence theory can be traced back to 1900s. Lewin proposed the concepts of “group”, “interdependence”, and “whole” in his field theory of social society. Group dynamic is based on interdependence of the group members. And a group is composed of a number of persons with certain similarities (Lewin, 1939). Deutsch (1949) extended Lewin’s concept of interdependence and identified two types of goal interdependence; one is positive and the other is negative. Positive interdependence means that the chance of attaining one’s goal is positively correlated to the chance of others obtaining theirs. In this kind of interdependence, students understand that helping others will also benefit themselves as they will achieve their goals too. If students are in such a cooperative relationship with one another, they are more effective in communication and with good attitudes. On the contrary, negative interdependence means people think that their achievement of goals is not related to the goal achievement of other people. In this kind of interdependence, students may lack confidence and compete with one another. Johnson and Johnson (1999) further developed the social interdependence theory on the

basis of Deutsch's and proposed five essential elements of cooperation including positive interdependence, individual accountability and personal responsibility, promotive interaction, appropriate use of social skills, and group processing. All these elements were conditions for effective implementation of collaborative learning in classrooms. Johnson and Johnson conducted a meta-analysis of more than three hundred studies and concluded that positive interdependence had a greater effect on learning than group membership or interpersonal interaction.

Social learning theory was developed by Bandura. Bandura (1971) combined two theories, namely the cognitive learning theory and the behavioral learning theory and modified them into the social learning theory. Bandura's theory postulates learning as a social process. Bandura came up with the requirements for learning. The first is learning by direct experience. Through experiencing something by oneself or observing others' behaviors, new behaviors will be acquired. Individuals will learn from one another by observation. This behavior will be enhanced through a rewarding system or suppressed by observing failure. The second requirement refers to retention processes. This means people cannot be influenced by others' behaviors if they cannot remember the behaviors. According to Bandura (1971), there are two representational systems in observational learning – an imaginal one and a verbal one. Learning is acquired through retrieving images of modeled sequences of behaviors. Also, the stimulus such as hearing the name of a person is highly related to experiencing imagery of the person's characteristic that stimulates the memory. The third requirement is related to reproduction processes. A learner puts together all previous responses through modeling or observation; then the person can perform the behaviors or the actions guided by the accumulated responses. The fourth requirement is motivation by the reinforcement role in observational learning. Reinforcement is one of the factors that can influence behavior. It can be a reward or an encouragement. Behavior partly creates the environment and the resultant environment, in turn influences the behavior. In this

two-way causal process, the environment is just as influenceable as the behavior it controls.

The above theories are interlinked. The following review attempts to disentangle the different research paradigms including the “effect”, “conditions” and “interactions” paradigms.

The “Effect” Paradigm

Researchers always discuss whether or not collaborative learning is more effective than individual learning. In Johnson, Johnson and Smith’s (2014) meta-analysis of studies from 1960s to 2009, they reviewed over 305 studies and compared the relative efficacy of cooperative, competitive and individualist learning on individual achievement in university and adult settings. The majority of the studies were conducted before 1980s. Sixty-one percent of these studies’ design used subjects with randomization. The studies were mainly in science, social science, computer science, English, mathematics, psychology, health and physical education. Various tasks, for example, verbal, mathematical and procedural, were assigned. This review grouped three dependent variables and they were: effort to achieve, quality of relationships and psychological health (Johnson, Johnson, & Smith, 2014). Over 168 studies found efficacy of cooperative, competitive, and individual learning were related to the achievement of students or adults (Johnson et al., 2014). The results showed that cooperative learning promoted higher achievement of students or adults than competitive or individual learning. The mean effect sizes for impact of social interdependence on the dependent variable of achievement are 0.54 (cooperation vs. competition) and 0.51 (cooperation vs. individual) (Johnson et al., 2014). Similar result was found in another meta-analysis. Springer’s group reviewed 37 studies in science, mathematics, engineering and technology. The result of this meta-analysis showed that small-group learning was effective in improving academic achievement, student attitudes and retention in academic programs with the effect size of 0.51, 0.55 and 0.46 respectively (Springer, Stanne, & Donovan, 1999).

Some negative effects were documented such as collaborative ineffectiveness (Hardy, Lawrence, & Grant, 2005; Johnson & Johnson, 1996; Smith, 2005; Dillenbourg, Baker, Blaye, & Malley, 1996; Slavin, 1991). The studies claimed to have created three conditions for effective collaborative learning to prevent learning failure as mutuality, positive interdependence and equality (Wang & Burton, 2010).

The “Conditions” Paradigm

To investigate the effectiveness of collaborative learning, researchers varied the “conditions” in the studied groups such that there were different group sizes, different group member characteristics, group heterogeneity and different types of group tasks. Webb’s meta-analysis was related to task-related verbal interaction among students when they worked in small groups. He reviewed 17 studies and found the pattern of interaction and the effects of collaboration varied across different groups with different ability compositions. Webb (1991) tried to divide groups into groups of wide ability range with high, medium and low ability in one group, homogeneous high ability, homogeneous medium ability, and homogeneous low ability in the other groups. Webb’s study found that students in the wide ability range group tended to discuss and participate more actively. The homogeneous medium ability group provided more explanations than the homogeneous high ability group. In the homogeneous low ability group, students lacked skills in selecting correct answers and explaining in greater details. Webb’s study in 1998 also supported that heterogeneous groups with at least one able member was more valuable than working in a homogenous group (Webb, 1998).

Gender composition in a group may affect the effectiveness of collaborative learning. Webb’s study found that there was no difference between same gender groups. Nevertheless, in male majority groups, girls performed less successfully than boys and the boys tried to ignore the girls. Interestingly, in female majority groups, girls tended to assist the boys and the girls

requested less help from others. In either boy majority or girl majority groups, boys performed better than girls even when they had the same level of ability (Webb, 1991). One recent study of engineering students in collaborative learning showed that collaborative learning positively influenced student achievement. Moreover, this study found that female students reported greater use of strategies in collaborative learning than boys (Stump et al., 2011).

Kooloos and his colleagues' study (2011) was about the effects of group size and assignment structure on students' collaborative learning. The researchers divided 405 students equally into three different groups and then subdivided each group into smaller subgroups. The first group had subgroups of 15 students each and they were asked to work on all of the assignments (a total of three cases) in the subgroups. The second group had smaller subgroups of 5 students each. These subgroups were also asked to work on all of the assignments. The third group had subgroups of 5 members each, similar to the second group, but each subgroup was asked to work on only one of the three cases and peer-teach one another within the subgroup. The result found that the smaller assignment subgroups (i.e., those worked on one of the cases only) enjoyed participating in the collaborative learning and had higher satisfaction. Students preferred smaller groups and they liked the small group with one case plus peer-teaching format.

The "Interactions" Paradigm

Learning involves a social process. It is a collective participatory process of active knowledge construction (Saloman & Perkins, 2011). Peer interactions refer to a cognitive elaboration approach (Webb, 1991). Several studies showed some types of peer interactions useful for learning and could render cooperative learning more effective. Webb's studies concluded that the quality of the responses, such as elaborating responses, asking questions, seeking help, were outcomes of cooperative learning (Webb, 1991; Webb, Farivar, & Mastergeorge, 2002). Webb identified a set of helping behaviors that may better predict the

learning of small collaborative groups. Webb also described conditions for effective helping behavior, and the responsibilities of students seeking help and giving help. In addition, teachers also have responsibilities to make helping productive for learning (Webb et al., 2002). Mercer's book drew teachers' attention to the creation of a common ground. The common ground can be established by asking questions (Mercer, 2013).

Recent studies showed that with the support of computers, the interaction between people and the measurement of constructs may be benefited too. Computer-supported collaborative learning has become more popular in education. Gress's group evaluated 186 empirical studies. The majority of the measures utilized in computer-assisted collaborative learning were self-report (33%) and assignments (19%). Some studies used computer-assisted collaborative learning in collection of data, discussion dialogues, interviews, observations, and feedback (Gress, Fior, Hadwin, & Winne, 2010). Most studies used computer to collect assignments (36.6%), others used computers to collect feedback (19.8%), to assess content knowledge (17.8%), to calculate GPA and collect feedback of collaborative activities, to help research design, and to collect feedback from teachers and students (Gress et al., 2010). In this study, computers were used to support students' collaborative learning in a way to collect their learning goals, teaching plans and reflections from teaching, and upload their teaching videos and reflective journals.

There are limited studies about enhancement of self-efficacy in collaborative learning. One study was about the association between engineering students' collaborative learning strategies and self-efficacy. This study showed students' reported collaborative learning strategies were associated with the enhancement of self-efficacy. Furthermore, female students used collaborative learning strategies more than male students (Stump et al., 2011). Another dissertation study was about intervention related to self-efficacy beliefs and collaborative learning in statistics classes. The literature review found that self-efficacy beliefs, collaborative learning, and academic achievement have not been studied in the empirical studies (Robertson,

2012). Only one research studied the effects of group composition on self-efficacy and collective efficacy in computer-supported collaborative learning. This study found high self-efficacy groups had higher collective efficacy on group motivation than low self-efficacy groups (Wang & Lin, 2007). To sum up, in order to better understand the enhancement of self-efficacy in collaborative learning, further research is needed as studies are limited and findings are inconclusive. Additionally, gender difference, group composition, group dynamic, different scaffolding techniques used in collaborative learning to enhance self-efficacy still need to be researched further.

2.7 Summary

This chapter reviews the studies on social skills, engagement in learning, self-efficacy and collaborative learning. Various authors have dedicated a great deal of effort to examine the effect of social skills, relationship between self-efficacy and engagement, and the effectiveness of collaborative learning towards students' learning. From the literature reviewed, collaborative learning has been applied in education settings. Nevertheless, collaborative learning is confused with cooperative learning in terms of definition, approaches and methods used.

Insufficient research has been conducted to investigate the relationship that exists between self-efficacy and collaborative learning. Moreover, most studies were conducted in western countries. In order to help students increase their self-efficacy so as to enhance their engagement in learning and improve their academic achievement, teachers are obligated to understand how collaborative learning influences students' learning in Hong Kong.

Chapter 3: Method

3.1 Introduction

This chapter provides details of the method, the use of action research in this project and its justifications. An outline of the study design and method will then be made which includes the investigation setting, the participant recruitment process, the data collection procedures, data management, data analysis procedures and methods. The applications of methodological and data triangulation and thematic analysis are examined. The final section discusses methodological rigor of the study.

3.2 Action Research as the Research Approach

This study adopted an action research approach to explicate the effect of collaborative learning on self-efficacy and engagement to generate positive reinforcement.

3.2.1 History of Action Research

There are a variety of views about the origins of action research which can be traced back to 1920s. Recent literature indicates that Kurt Levin is the father of action research. However, there is evidence that much earlier in the 1920s the educational work of John Dewey may have served as a precursor to action research. Dewey developed a theory on experience and reflective thought and action. He explored the social nature of learning and used scientific method for hands-on problem solving (Masters, 1995; Miettinen, 2000). In 1945, Collier was involved in the development of action research. Collier's article, entitled 'United States Indian Administration as a Laboratory of Ethnic Relations', was released a year before Lewin propounded his in 1946. Action research had been criticized as imperfect. Nonetheless, Collier (1945) supported action research as this would be better than waiting for perfection that no one

knew when it would come. Moreover, errors could be cured by new actions and Collier thought that it was important to have more research and through such iterative processes it would be hoped that better research methods could be developed.

Kurt Lewin (1946), a social psychologist, was the first to use the term ‘action research’. In his article “The Dynamics of Group Action”, he explained how he had moved from descriptive studies to action research. Disregarding hosts of prejudices, he tried to proceed from descriptive studies of social relations and attitudes to what may be called action research on groups. Lewin (1946) portrayed action research as a spiral process. The spiral process is comprised of planning, taking action, observation, reflection and fact-finding about the results of the action. Action research was originally designed to investigate social issues. In later works, action research was applied by practitioners and teachers to solve real-life problems in their workplaces. Stephen Corey (1949) was the first one to introduce action research in the educational field. Corey defined action research as “the process by which practitioners attempt to study their problems scientifically in order to guide, correct, and evaluate their decisions and actions is what a number of people have called action research” (Corey, 1953, p. 6). Teachers are attempted to study the problems of teaching in scientific way. Action research is a process and this process guided teachers to take actions for changes and to evaluate the action.

In 1950s, the interest in action research in education subsided and this method was criticized by scholars as poor and unscientific. Hodgkinson (1957) critiqued that action research could only be regarded as quantified common sense and it was not as scientific as empirical research. However, Borg (1965) defended the goals of action research and stated that it could provide in-service training to teachers and help their professional development rather than just the acquisition of general knowledge in the field of education.

In the 1970s to 1980s, action research began to appear again in education. The researchers started to question the applicability of experimental methodologies to educational

settings and problems. Researchers and teachers pointed out that much research lacked practicality and was inconsistent with the reality of the classroom. Clifford addressed that action research helped researchers to examine the meaning of their contexts (Clifford, 1973). Echoing similar view, Elliott (1991) agreed that the aim of action research was not to produce new theory. The aim of action research was to improve the practice of teacher rather to produce knowledge. The construction and application of knowledge was subordinated to the aim. Action research helps teachers to gain knowledge and skills only in research methods and applications. Moreover, action research allows teachers to improve practice through reflective teaching. Creswell (2005) defined action research as a process that teachers were involved in identifying school-based topics or problems to investigate. They were responsible for collecting data, analyzing information and taking action to solve the problems. Such a self-reflective process would help teachers understand the various aspects of their daily practices better. Methods in action research can be quantitative or qualitative. However, it is more common to use qualitative methods in action research.

3.2.2 Purposes and Benefits of Action Research

Three main purposes of action research in education have been identified in the literature. Firstly, action research contributes to school-based curriculum development. Secondly, it can be used in systems planning and policy development and finally, it is an effective evaluative tool for school restructuring (Quang, Thi, & Hang, 2008).

There are lots of benefits in conducting action research. The benefits can be grouped into three areas - professional development of teachers, creation of knowledge and new practices, and the value of teachers being involved as a part of the research (Keegan, 2016). It contributes to teachers' professional development through investigating their own practice and better understanding of their students. In this professional development process, teachers play roles of

both mentors and learners. Action research provides insights into instructional and pedagogical knowledge. When teachers are more engaged in finding solutions to their identified problems, knowledge is generated. Corey (1949) observed that the supporters of action research considered that teachers would particularly value what they have found through investigation of their own identified problems in action research. The newly generated knowledge when applied will become a new practice. Action research can therefore help to improve practices. When teachers are being a part of the research, the value of the process is changed. If they are engaged more conscientiously in reflecting on their own practices, they will be more involved in a self-reflective approach to share the value, beliefs and goals of the development of educational ideas and practices (Halton, 2004; Cohen, Manion, & Morrison, 2005).

3.2.3 Characteristics of Action Research

Many scholars characterized action research as school-based research since it is participant-driven, collaborative and context-specific. Moreover, action research usually leads to change and improvement of the practices of teachers (McDonough, 1997; Carr & Kemmis, 2004). Borgia and Schuler described the components of action research as the “Five C’s” (Borgia & Schuler, 1996, p.4). The “Five C’s” are commitment, collaboration, concern, consideration, and change. Participants need to commit time for getting to know each other, observing, documenting, reflecting and interpreting the outcomes of the practices. In collaboration, all participants have equal power. They are actively involved in sharing ideas, making suggestions to enhance the success of the change. During the process of the action research, close working group will develop trust and show concern for each other. Participants should also identify the patterns brought by their actions and consider carefully the relationships between actions and outcomes. Change is part of the developmental cycle of a teacher’s life and is an ongoing process and an important element to become an effective teacher (Borgia & Schuler, 1996). The next section is

about the reasons for selecting action research approach in this study.

3.2.4 Justifications for Selecting the Action Research Approach

Action research was chosen as the method for this study based on two reasons: action research enables researchers to solve the complexity of community-based problems in learning and it facilitates professional development of teachers. The rationale behind is that action research, as a methodology, can help achieve this study's objectives in solving how self-efficacy and social skills of undergraduate student teachers can be enhanced in the collaborative learning. Stringer (2007) stated that action research enables researchers to solve problems and understand situations better. By using action research, it is an attempt to generate knowledge within the collaborative participants. Through collaboration, it helps researchers understand the situation more deeply. By using action research, both researchers and participants use reflective skills in the process. This practice can help researchers investigate their own practice to achieve the research objectives. The second rationale is that action research is beneficial for teacher empowerment. It can act as a tool that develops and empowers teachers. Fandino (2010) stated that action research can empower teachers because they are engaged in critical reflection of their teaching and learning. Teachers are required to conduct research not simply to create knowledge or test out the hypothesis, but to bring to light the rationale behind those knowledge and hypothesis. Hence they are encouraged to enhance their practices and voice out issues to impact decisions regarding their educational setting (Mahani, Emirates, & Molki, 2012). Therefore, action research was selected for this study.

3.2.5 Stages of Action Research Cycles

Traditionally, Lewin used action research in solving social issues. Lewin's (1946) model of action research involves a cyclical sequence with two major phases: diagnostic and therapeutic.

These two phases are further divided into seven stages. In the first stage, researchers need to formulate or evaluate problems or ideas of the participants. In the second stage, they need to clarify the nature of the problems of the participants. In the next stage researchers are required to derive hypotheses from the problems. Following this, researchers have to gather information or evidence for testing out the proposed hypotheses. Then, researchers and participants are engaged collaboratively in teams for discussing, negotiating and making decisions on the selection of research procedures. In the second last stage, participants are involved in the realization of the action plan, i.e., to execute the tasks and choose the evaluative procedures. The last stage of Lewin's model is to interpret the collected data with a concluding evaluation.

Many noticeable scholars use action research principles that match with Sagor's study (Sagor, 2011). Sagor (2011) viewed that action research was any investigation to empower peoples to take action for the purpose of improving their future actions. Sagor's model of action research consists of four stages: clarifying vision and targets, articulating theory, implementing action and collecting data, and reflecting on data and planning informed action. The first stage (clarifying vision and targets) enables researchers to identify goals, clarify attributes that contribute to goal attainment and meeting targets. In the second stage (articulating theory), researchers need to enact a detailed rationale for the planning process that involves examining the relationships and interactions of the relevant factors that might influence the vision or the performance targets identified in the first stage. In the third stage (implementing action and collecting data), researchers need to carry out the action plan and develop a data-collection plan designed to produce reliable answers for the research questions. Afterwards, in the last stage (reflecting on the data and planning informed action), researchers can perform critical reflection on the collected data. Based on an analysis of the data, a revised theory of action will be generated for future action. All these stages are described by Sagor as the "action research cycle" (Sagor, 2011, p. 8), which is illustrated in Figure 3.1. This figure shows the cyclical nature of the work

accomplished through the four stages. In this study, Sagor's four stages of the action research method was adopted. The four stages of action research were repeated for each of the three cycles in this study, which is illustrated in Figure 3.2. Detailed information on the activities in the first, second and third cycles of the action research can be found in Chapters Four, Five and Six.

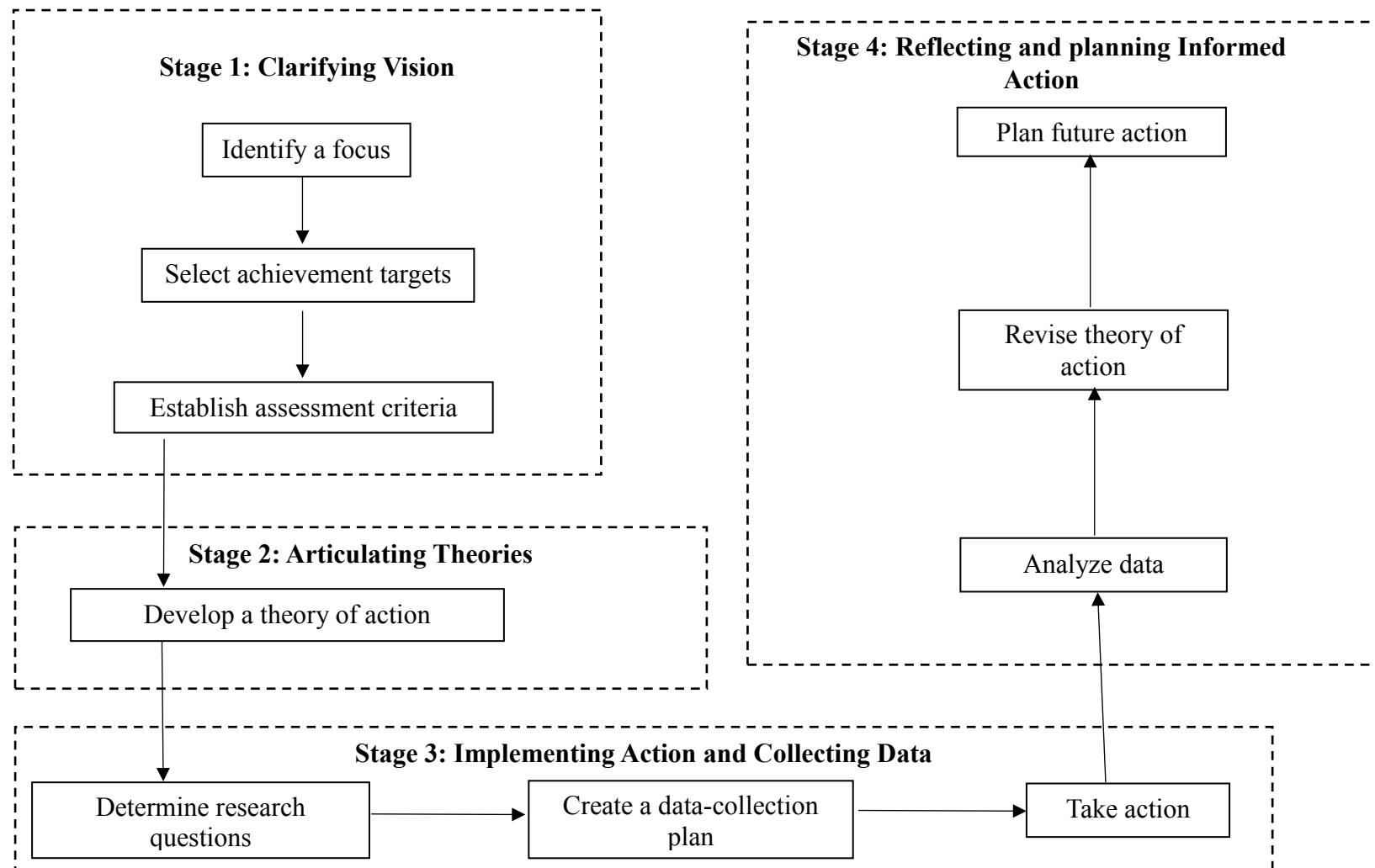


Figure 3.1 Sagor's four stages of action research cycle. Adapted from "Action Research Cycle," by Sagor, R., 2011, The Action Research Guidebook, 8. Copyright 2011 by Corwin.



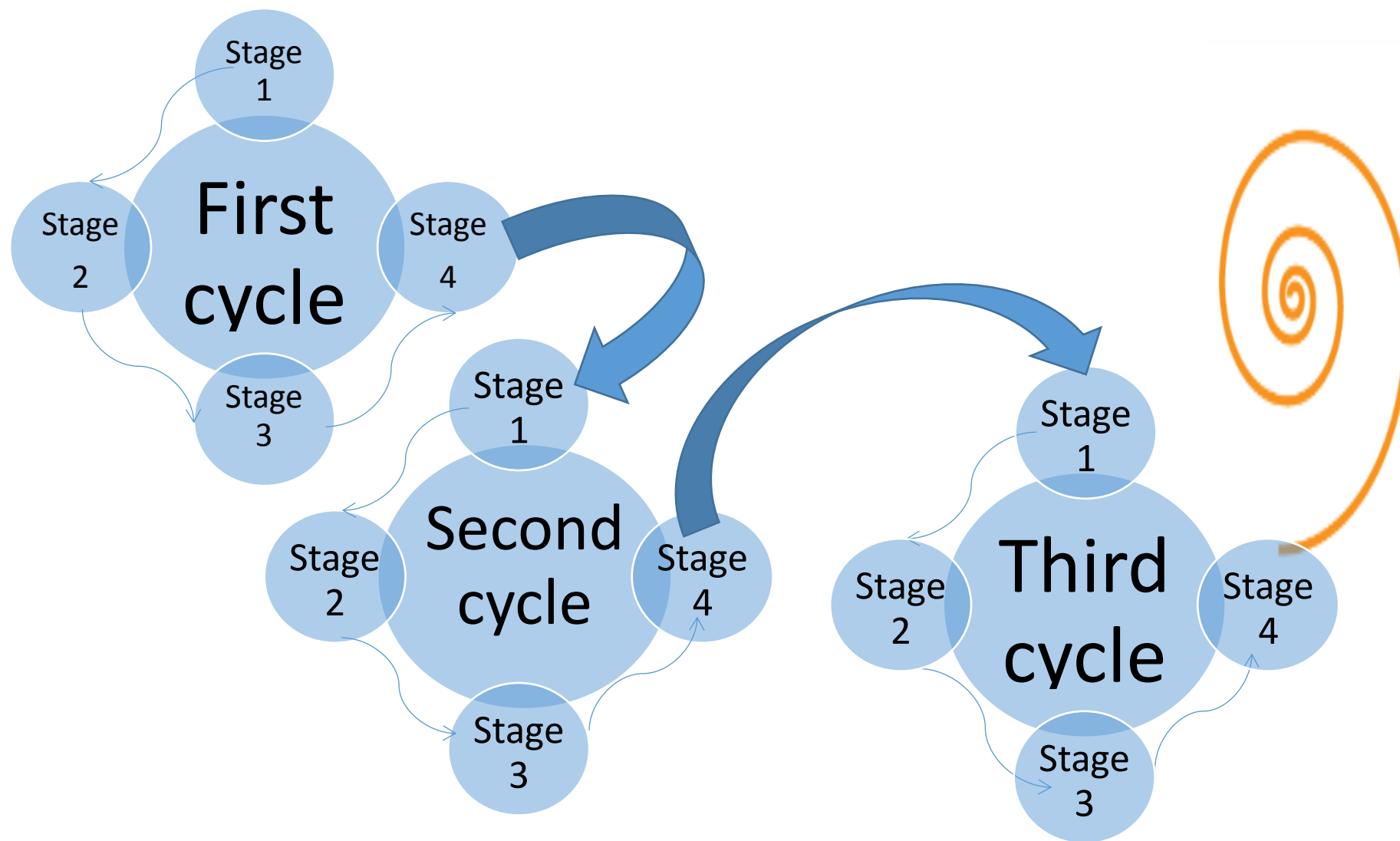


Figure 3.2 The three cycles of the action research in this study. Adapted from “Action Research Cycle,” by Sagor, R., 2011, The Action Research Guidebook, 8. Copyright 2011 by Corwin.



3.3 Collecting Data

3.3.1 Research Settings

In this study, a secondary school in Ma On Shan and The Education University of Hong Kong (EdUHK)¹ were selected as the study sites. The first and second cycles of the action research took place in two settings: the secondary school and EdUHK. In the third cycle, EdUHK was selected as the study site.

3.3.2 Recruitment Process

There were three cohorts of undergraduate student participants recruited in these three cycles. In the first and the second cycles, undergraduate students were recruited by convenience sampling through posting promotional posters in the intranets of the Faculty of Liberal Arts and Social Sciences (FLASS) and the campus. The initial sample of the first cycle was a small group of five students from FLASS. The sample of the second cycle was a group of eight students from FLASS. The characteristics of the participants will be illustrated in next section.

3.3.3 Participants

The sample sizes of the undergraduate students in the first, second and third cycles were five, eight and forty-nine respectively and they were undergraduate students enrolled in the FLASS. The characteristics of the participants according to their gender and years of study in EdUHK are provided in Table 3.1 below.

¹ Formerly The Hong Kong Institute of Education (The Institute) which was officially retitled “The Education University of Hong Kong” (EdUHK) on May 27 2016.

Table 3.1 Characteristics of undergraduate students in different cycles of this study (N = 5, 8 & 49)

Cycle	Characteristics of Undergraduate students in this study		Number of undergraduate students
One	Gender	Female	4
		Male	1
	Years of study in EdUHK	Year one	3
		Year two	2
Two	Gender	Female	2
		Male	6
	Years of study in EdUHK	Year one	4
		Year two	3
		Year three	1
Three	Gender	Female	28
		Male	21
	Years of study in EdUHK	Year one	1
		Year two	48

3.3.4 Data collection

After recruitment, the students were invited to join an introductory session that explained the research. The introductory session was repeated in the first and second cycles. Before signing the consent forms, participants received an information sheet on data to be collected in the study and the protection of data privacy. As the researcher was not the teacher of these students, clarification was provided to them about her role as the researcher and as a PhD student in the introductory session. The researcher emphasized that she would be involved in their learning process as a researcher participant. The students were given assurance that their grades would not be positively or negatively affected in their study programs by participating in the language enhancement schemes.

Before starting the tutoring programs, English enhancement workshops were provided to the undergraduate students. The English instructor of the workshops and the students established learning objectives and set mutual goals in the workshops. The undergraduate students were asked to submit at least three learning goals, teaching plans and reflections after each lesson on the monitoring of the quality of the tutorial classes. Class observation and continuous coaching were done by the workshop instructor.

In the first and the second cycles of the research, findings were obtained from different sources namely, validated questionnaires, student participants' learning goals, their teaching and learning records and reflection on teaching and learning, focus group interviews, field notes from observation, program feedback from secondary school students and instructor's reports. Data were collected by the researcher. The variability of data sources and data collection periods and time were recorded in order to identify and thus to avoid any biases of the data.

The first and the second cycles of the action research were collaborative learning held in a small group tutoring setting. This setting was different from the usual conventional classroom setting that one usually finds in other action research projects. Basing on the findings

of these two initial cycles on students' perceived English enhancement, collaborative learning was further explored and applied to other academic subjects in conventional classroom settings in the third cycle of the action research. In so doing, the researcher tried to explore the transferability of collaborative learning from English learning context to other contexts.

In the third cycle, classroom artifacts of the EdUHK course 'Diet in Health and Disease' were collected. As the researcher was also the course lecturer, classroom artifacts of the course "Diet in Health and Disease" were collected to narrow the high power distance between the students and the course lecturer. The classroom artifacts included the learning goals, the questionnaires for their learning and the reflective journals of the collaborative learning.

3.3.4.1 Validated questionnaires

In the first and the second cycles, a Language Self-efficacy Scale was used to assess self-efficacy in English. In the first cycle, the Motivated Strategies for Learning Questionnaire (MSLQ) was used to assess the student participants' engagement in learning English. In the second cycle, this was done again but with an adapted Motivated Strategies for Learning Questionnaire (MSLQ) based on the review done in the first cycle.

In the last cycle, a Self-Efficacy for Learning from Motivated Strategies for Learning Questionnaire was used to assess the student participants' self-efficacy in learning the course 'Diet in Health and Disease'. To measure their basic social skills and to assess their nutrition knowledge, the Social Skills Inventory (SSI) questionnaire and the Revised General Nutrition Knowledge Questionnaire (GNKQ-R) were used respectively. All of the questionnaires can be found in Appendix I to K.

3.3.4.2 Students' Learning Goals

In the first and the second cycles, student participants were encouraged to submit their learning goals online after attending the first English workshops respectively. A file inviting the student participants to write at least three learning goals on a timeline, the associated learning activities or strategies to accomplish the goals and the resources to help them reach the goals was shared privately with them via the online platform. All these collected files were only viewed by the researcher and the English instructor. The collected student learning goals can be found in Appendix M.

3.3.4.3 Students' Teaching and Learning Records

Student participants were asked to submit their teaching plans online in advance of their tutoring lessons with the secondary school students. The English instructor would give feedback and comments on their teaching plans before such lessons. Some guided questions about the teaching plans were provided to the student participants, for example, 'What objectives are you trying to achieve?', 'Outline the activities or exercises and teaching aids you will use in the lesson' or time allocated etc. An example of the shared file can be found in Appendix L.

3.3.4.4 Students' Reflection on Teaching and Learning

In the first and the second cycles, a file inviting student participants individually to submit their reflection on teaching after the tutoring lessons was shared privately with them. Same as before, all these collected files were only viewed by the researcher and the English instructor. They were encouraged to report on the total preparation time for the lessons, to reflect on whether or not the objectives of the lessons had been achieved and what worked or what did not work and why. The student participants were also advised to rate their performance from the lowest of 1 to the highest of 10 after each lesson. A sample online students' reflection on teaching and learning

form can be found in Appendix N.

3.3.4.5 Focus Group Interview

In the same two cycles, semi-structured focus group interviews were used to collect the student participants' experiences in the whole process of the collaborative learning. Sampling of informants was guided by purposive strategies. All student participants were invited to the focus group interview and the interviews were conducted in a private meeting room in the university. Before the interviews commenced, the participants were provided with copies of the semi-structured interview questions (Appendix D) and were given full explanations of the study purpose and the process. The participants were assured that confidentiality of their personal information would be observed and they had the rights to withdraw from the study at any time. The consent of audio-taping the interviews was sought from the participants. The researcher conducted the semi-structured interviews in Cantonese and began them with an open-ended question. Examples of the questions asked in these two cycles were: *"How do you prepare for your tutoring lesson?"*, *"Do you have any thoughts in the completion of each tutoring lesson?"*

The semi-structured interviews lasted for around 60 to 80 minutes and were audio recorded and transcribed verbatim afterwards. The transcriptions were checked for accuracy in a process where the recorded interviews were listened again and the transcriptions were read repeatedly at the same time.

3.3.4.6 Field Notes from Observation

Mack, Woodsong, MacQueen, Guest, and Namey described the functions of field notes as "Handwritten notes, later converted into computer files, are often the only way to document certain participant observation activities, such as informal or spontaneous interviews, observation, and generally moving about in the field." (Mack, Woodsong, MacQueen, Guest, & Namey, 2005,

p. 23). Field notes were taken during observation of the tutoring lessons in the first and second cycles. During observation, the researcher reminded student participants that the researcher was there to observe the process of the tutoring lesson and emphasized that the researcher was not there to assess their performance. The observation was conducted either in one or two alternative weeks' intervals depending on the schedule of the tutoring lessons. To illustrate, the researcher provide an example of field notes on the next page (Table 3.2).

Table 3.2 An example of the field notes.

Field notes of observation of a tutoring lesson (by student participant A) 9 th May 2014	
What did I see?	What did I think?
<p>Student A conducted her tutoring lesson with five secondary school students. The topic was about the preposition of time. She began with a quick recap of her last lesson.</p> <p>She then gave out a short reading with a series of warm-up questions to facilitate discussion.</p> <p>Student A ended the lesson summarizing the main points covered and seeking students' feedback on the tutoring lesson.</p>	<p>Student A conducted the tutoring lesson in a classroom which was conducive to the lesson and discussion. She demonstrated a good use of the blackboard and played a clear role as a teacher with strong confidence in her explanation. I could see and feel that the secondary school students were well motivated to participate and interact with one another in her class. Student A was a well-prepared teacher with high motivation in delivering her structured lesson. She chose a good standard textbook for the secondary school students.</p> <p>In general, Student A built a good rapport with the secondary students. The communication during the tutoring lesson was two-way. Student A encouraged her students to ask questions.</p> <p>After the observation, I gave some minor recommendations to Student A. I discussed with Student A the improvement on students' memorization techniques and suggested that she should share her personal experience. Moreover, I suggested that she should give her students more guidelines and instructions on written exercises.</p>

These field notes were written immediately following the observation on 9th May, 2014.

They were reflections of my observations and were used to support other sources of data.

3.3.4.7 Program Feedback from Secondary School Students

In the English tutoring lessons, the undergraduate student participants collaborated with their secondary students. Both sides developed a professional tie in the tutorial classes. The opinions from the secondary school students were important inputs to inform the feasibility and the evaluation of the program. The feedback on the collaborative learning from the secondary school students were collected by using structured questionnaires. The questionnaires were written in Chinese with eight open-ended questions. These questionnaires covered descriptive data related to the students' characteristics including their sex, age and duration of stay in Hong Kong. Also, the questionnaires collected the opinions of the secondary school students on the tutoring lessons.

Sample questions asked in the first and second cycles of the action research were:

“What do you think about the tutoring lesson that had been provided by the students of EdUHK?”,

“Are you interested in learning more English after completion of the tutoring lessons?”

A sample questionnaire can be found in Appendix F.

3.3.4.8 English Instructor's Report

Apart from the collaborative learning amongst the undergraduate students and the secondary school students, collaborative learning also took place when the undergraduate student participants interacted with the English instructor. During the first and the second cycles, English enhancement workshops were run for the student participants prior to the beginning of the tutorial classes and before the sessions of on-site class observation visits made by the English instructor. The English instructor wrote the on-going report and summative report on the progress of the student participants. In general, the English instructor reported the observation from the workshops and the on-site visits of each student and all students as a

whole. The English instructor's reports were used to triangulate with other data source. Moreover, the English instructor was asked to comment on the self-efficacy and the engagement of the undergraduate students, and the teaching methodology and techniques in the tutoring lessons as reported by the undergraduate students.

3.4 Data Analysis

Qualitative data were obtained from the semi-structured interviews in the first and the second cycles and the reflective journals of the collaborative learning in the last cycle. The themes identified were related to the experiences of the undergraduate student participants. Thematic analysis was an appropriate method to identify the experiences of these students. This analysis, as an independent qualitative descriptive approach, is mainly described as “a method for identifying, analyzing and reporting patterns (themes) with data” (Braun & Clarke, 2006, p. 79).

There are several benefits in using thematic analysis. It is a relatively easy and quick method to learn and do and is useful for working within the participatory research paradigm. It can summarize key features of a thick description of the data set. Moreover, similarities and differences can be highlighted by using this analysis. It can generate results that are accessible to educate the general public.

Thematic analysis was adopted in this study to break down and interpret the undergraduate students' experiences after their participation in the collaborative learning. The data from semi-structured interviews in the first and the second cycles were transcribed and the transcripts were checked against the tapes for 'accuracy' for three times. In the last cycle, the data from students' reflective journals were already written in English. The transcribed verbatim was coded and underwent qualitative thematic analysis as described by Braun and Clarke (2006) to reveal the process of collaborative learning and the participants' responses.

The processes of data analysis mainly have six phases. A diagrammatic representation of the processes of thematic analysis is shown in Figure 3.3. Firstly, in familiarizing with the data, the transcribed data were read and re-read for familiarization and they were compared with the original data set for at least three times. After this read and re-read and familiarization phase, notes on items of potential interest were taken. Secondly, initial codes were developed. Interesting features of the data were coded systematically across the entire data set. Then, data were further collated to each relevant code. Thirdly, codes were collated into potential themes, into which relevant data were grouped. Fourthly, to review the themes, themes would be checked in relation to the coded extracts. After the extraction of the codes, the entire data set together with a thematic map was drawn. Fifthly, to define and name the themes, an ongoing analysis was done to refine the specifics of each theme. After the ongoing analysis, the overall story of the analysis was told. Then, clear definitions and names for each theme were generated. Lastly, producing the report was the final opportunity for analysis. In this last phase, selection of vivid, compelling extract examples, final analysis of selected extracts, and relating back of the analysis to the research questions and literature were done. Finally, a report of the analysis was produced by using NVivo 8. Taking the generation of themes in the second cycle of action research as an example, a demonstration of the theme development by using the thematic analysis is illustrated in Appendix G.

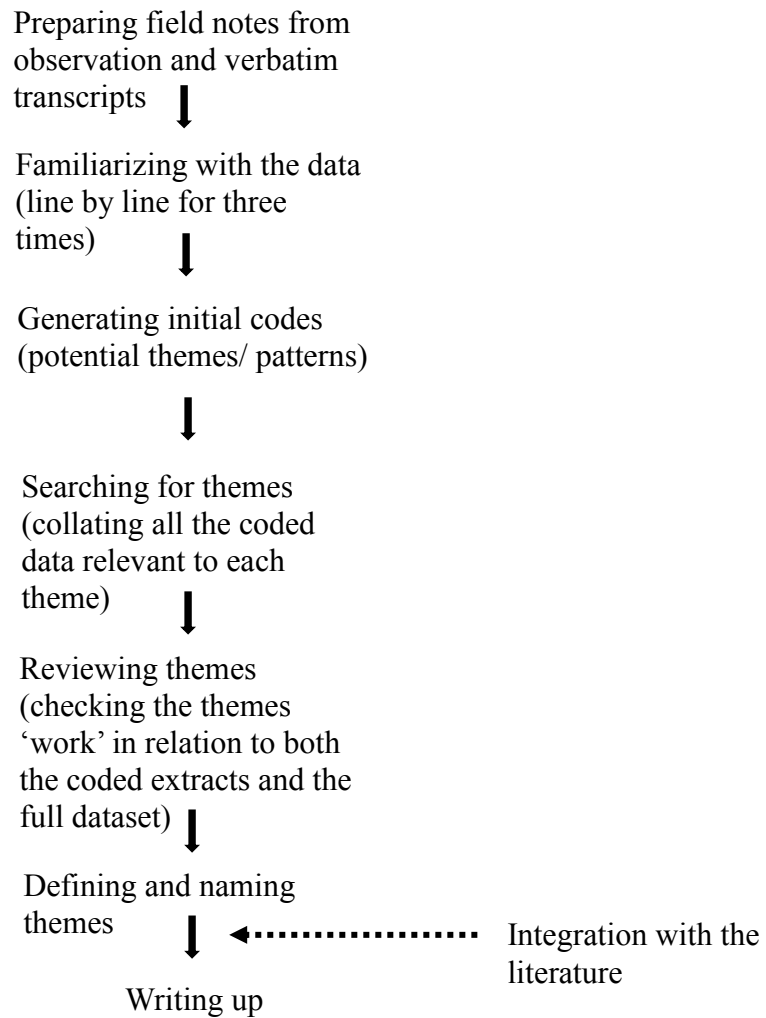


Figure 3.3 A diagrammatic representation of the processes of thematic analysis. Adapted from “Phases of Thematic Analysis,” by Braun, V., and Clarke, V., 2006, *Qualitative Research in Psychology*, 3(2), 35. Copyright 2006 by University of the West of England.

3.5 Methodological Rigor

The rigor and subjectivity of qualitative research have been debated for many years despite there being some criteria to assess the quality of naturalistic research. Conventionally, trustworthiness of a research can be demonstrated by its “truth value”, applicability, consistency, neutrality, (Guba & Lincoln, 1981, p. 78-79) and validity and reliability (Morse, Barrett, Mayan, Olson, & Spiers, 2002, p. 8; Golafshani, 2003). In 1985, Lincoln and Guba (1985) further developed the criteria for assessing the trustworthiness of qualitative research into credibility, transferability, dependability and confirmability. In this study, Lincoln and Guba’s four criteria were adopted. Several techniques were suggested by Lincoln and Guba to maintain the trustworthiness and to establish the rigor of qualitative research. Some techniques were adopted to ensure the methodological rigor of this study.

Credibility was established by member checking, inclusion of multiple accounts of same events and illustrations for each category. For example, five randomly selected transcripts (10%) were read again by the researcher’s supervisors and quotes from the verbatim transcripts were extracted to describe the essential features of each theme. Moreover, the technique of triangulation was used to ensure the credibility of this study. Multiple and different sources of data collection modes including semi-structured interviews, questionnaires, observations, undergraduate students’ reflections, secondary school students’ feedback and the English instructor’s reports were used to verify the experiences of the undergraduate students. Lastly, negative case analysis was adopted for revising hypotheses (Lincoln & Guba, 1985).

Transferability was established by thick description of each stage of this study to ensure “someone interested in making a transfer to reach a conclusion about whether transfer can be contemplated as a possibility” (Lincoln & Guba, 1985, p. 316). To achieve this, the sample selection, dense background information about the informants, the research context and setting were described in this study to allow others to assess how transferable the findings are (Krefting,

1991).

Dependability was evident in the repetition of the themes over several participants. The technique to ensure dependability was to conduct a code-recode procedure on the data during the analysis stage. After coding a segment of data, the same data were re-coded again after two weeks. The results of the coding and recoding were compared. Moreover, repeated observation of the tutoring classes conducted by the same English instructor was taken to ensure the dependability of this study (Krefting, 1991).

Confirmability can be achieved by using audit strategies. Six categories of records can be included in the audit namely, “raw data, data reduction and analysis products, data reconstruction and synthesis projects, process notes, materials related to intentions and dispositions, and instrument development information” (Lincoln & Guba, 1985, p. 319-320). Triangulation of multiple methods and data sources was adopted. The records in the whole process of the action research were kept. A diagrammatic representation of the processes of thematic analysis with methodological rigor is shown in Figure 3.4.

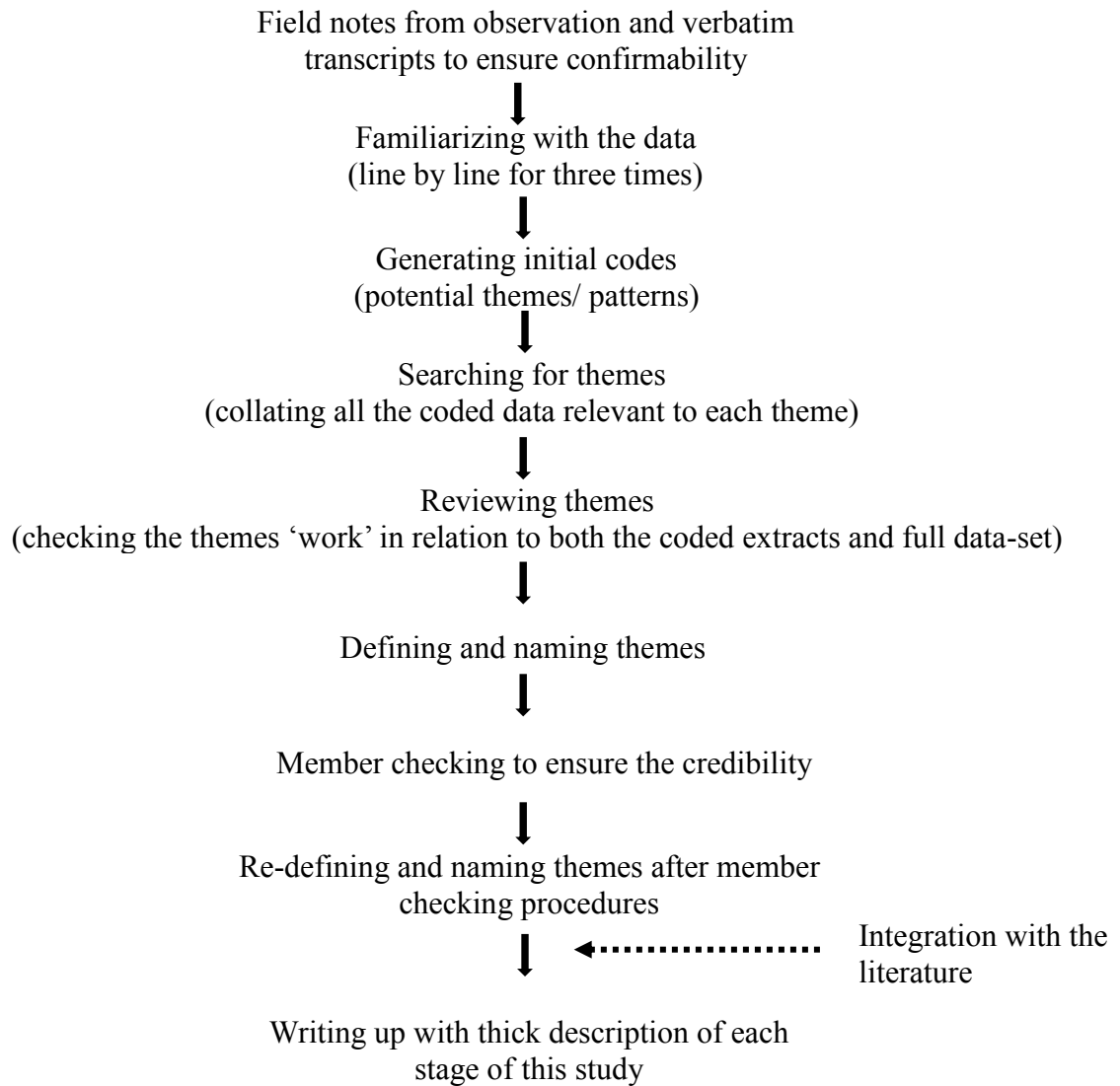


Figure 3.4 A diagrammatic representation of the processes of thematic analysis with methodological rigor of this study (Golafshani, 2003; Guba & Lincoln, 1981; Morse et al., 2002). Adapted from “Phases of Thematic Analysis,” by Braun, V., and Clarke, V., 2006, *Qualitative Research in Psychology*, 3(2), 35. Copyright 2006 by University of the West of England.

3.6 Ethical Considerations

Approval of the study was obtained from the Ethics Committee of EdUHK. All participants were informed of the purpose and the nature of the study and their written consent obtained. An information sheet was provided to the participants detailing the purpose of research, the procedure of data collection and the rights of the participants during the whole process of the research. All participants took part in this study on a voluntary basis after being fully explained of the procedures of the research and their rights as participants. Then they were asked to sign the written consent form before the commencement of data collection. They were told they could withdraw, if needed, at any time and at any stage of the study without any penalties and consequences.

Confidentiality and anonymity were assured. The collected data were only accessible by the researcher and the researcher's supervisors during the research. Pseudonyms were assigned to participants to ensure the confidentiality of the data. Two types of data were collected in this study. Soft file data included audio-taped files and excel files. Soft file data were entered into a computer and then password-protected. The hard copy data were kept in a locked and secure filing cabinet in the researcher's office. Data obtained were used in this study only and all raw data would be destroyed after the study was completed. The research data will be destroyed after five years.

3.7 Summary

This chapter describes the study method. Action research was chosen as the research approach because it enables the researcher to solve the complexity of community-based problems and facilitates professional development among teachers.

This chapter provides detailed information regarding the context of the action research, research settings, data collection and data analysis procedures. The rigor and ethical

considerations of the study were also discussed. The next chapter will focus on the first cycle of the action research.

Chapter 4: First cycle of the action research

This chapter describes the first cycle of the action research which includes: stage one - clarifying vision and targets, stage two - articulating theory, stage three - implementing action and collecting data, and stage four - reflecting on data and planning informed action for the second cycle of this action research.

4.1 Stage 1: Clarifying vision and targets

4.1.1 Goals

The goals of this stage were to examine the feasibility and the effectiveness of a collaborative learning on undergraduate students' self-efficacy and engagement in learning English.

4.1.2 Targets

The target group being studied was the undergraduate students who were studying in the FLASS of EdUHK.

4.2 Stage 2: Articulating theory

4.2.1 Focus of this stage

The focus of this action research is to ascertain the effect of the collaborative learning on undergraduate students' self-efficacy and engagement in learning English. Undergraduate students participating in the study were required to collaborate with a number of parties and through the collaborative process their own English learning was assessed with respect to their self-efficacy in improving proficiency and their engagement in learning.

4.2.2 Conceptual framework

Conceptual framework of the first cycle of this action research:

The conceptual framework of the first cycle of this action research was based on Bandura's self-efficacy belief which stated individuals' beliefs in self-efficacy influence their capabilities and engagement in performing a task (Bandura, 1999; Schunk, 2003).

There are four primary sources of self-efficacy which include mastery experience, vicarious experience, social persuasion, and physiological states (Bandura, 1997). Bandura (1995) postulated that there are four sources of influence in people's self-efficacy beliefs. Mastery experiences are based on people's prior experiences toward a specific task. If people have successful experiences in performing a specific task, they are more likely to have higher self-efficacy in that task. The second source is vicarious experiences. Vicarious experiences are learning acquired by people through observing. Self-efficacy can be gained by social modelling. The third source is social persuasion. People may perceive higher self-efficacy when they get encouragement from the significant others such as parents, teachers or peers. Likewise, people may have low self-efficacy when they face discouragement from the significant others. The last source of self-efficacy is people's physiological and emotional states. Physiological states and emotional states such as stress and tension may affect people's performances. Mood affects people's judgments of their ability to finish tasks.

Student engagement was discussed in terms of behavioral engagement, cognitive engagement, and motivational engagement (Linnenbrink & Pintrich, 2003). Linnenbrink and Pintrich stated that behavioral engagement involves some observable behaviors. Students were more engaged when they showed more effort, persistence to the tasks and help-seeking behavior. Sometimes, help-seeking behavior alone is not a good indicator of behavioral engagement. If students are seeking help from peers or teachers in order to understand the materials better, this is a good indicator and this is instrumental help-seeking behavior. Students

are said to be engaged when they show positive behaviors such as class participation, attendance, task completion and effort (Fredricks et al., 2011; Miller et al., 1996).

When students are cognitively engaged, they demonstrate the use of metacognitive strategies to plan, monitor or evaluate their learning (Pintrich & De Groot, 1990; Zimmerman, 1990). Therefore, students who are cognitively engaged display a deeper level of learning by paraphrasing or summarizing materials or organizing knowledge with concept maps or outlines. Students demonstrate effort in tasks when they are being engaged cognitively. Students are cognitively engaged if they monitor and regulate their learning by reflecting on their own thinking, actions and behavior (Linnenbrink & Pintrich, 2003).

Motivational engagement from Linnenbrink and Pintrich stated characteristics in terms of students' interest, value and affect. Interest is a motivational variable and is defined as a psychological state of desire to engage with or participate repeatedly in activities associated with specific classes of objects, events, or ideas over time (Hidi & Renninger, 2006). The affective component of interest refers to positive emotions accompanying engagement (Hidi & Renninger, 2006). People who have interest in an activity are more engaged in it and tend to learn more. Both positive and negative affects are linked to students' learning and achievement. High levels of anxiety will negatively affect learning (Linnenbrink & Pintrich, 2003). Emotions provide both fuel and guidance for students' behaviors.

As self-efficacy and engagement are inter-related with reciprocal effect, raising self-efficacy improves learning and achievement. Linnenbrink and Pintrich discussed a general framework for self-efficacy, engagement and learning. This framework explained how self-efficacy was related to student engagement, in terms of behavioral, cognitive and motivational engagement. They stated that the three components of engagement are correlated. Therefore, if students are cognitively and motivationally engaged, the behaviors are likely to be engaged. Linnenbrink and Pintrich stated that self-efficacy led to improvement in engagement which in

turn led to improvement in learning and achievement. Moreover, the direction of cause and effect relationship also flowed back to self-efficacy reinforcing it over time. Self-efficacy may have both a direct and indirect influence on behavior. Linnenbrink and Pintrich's general framework explained the direct influence on cognitive, behavior and motivational engagement.

4.2.3 Research Questions

- i. Will collaborative learning increase students' self-efficacy in learning English?
- ii. Will collaborative learning increase students' engagement in learning English?
- iii. What will students think about collaborative learning?

4.2.4 Hypothesis

The following hypothesis was formulated:

H_A: Collaborative learning improves undergraduate students' self-efficacy and engagement in learning English.

4.3 Stage 3: Implementing Action and Collecting Data

4.3.1 Subject and recruitment procedures

At this stage, a collaborative learning was used to help improve student's self-efficacy and engagement in learning English.

Undergraduate students were recruited by convenience sampling through posting promotional poster in the intranets of FLASS and the campus. The initial subject of this cycle was a small group of five students from FLASS.

4.3.2 Collaborative learning

In this collaborative learning, the undergraduate students were assigned to provide English tutorial lessons to secondary school students in groups of three. Figure 4.1 showed the details of the collaborative learning in the first cycle of the action research.

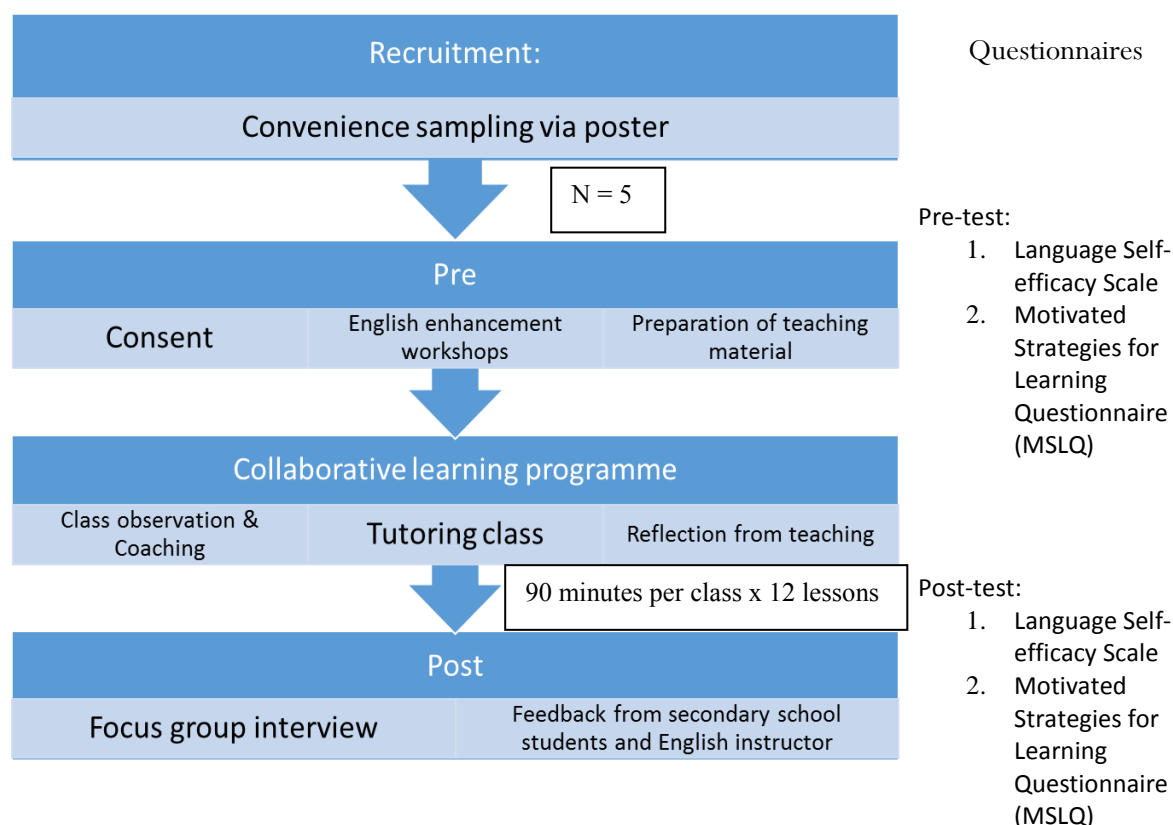


Figure 4.1 Details of collaborative learning in the first cycle of action research.

Altogether five undergraduate students were recruited. Each tutorial class was conducted in a group with two lessons a week on a biweekly basis with each lesson lasting for 90 minutes in a total of 12 lessons. The tutoring program ran for two and a half months. Before starting the tutoring program, an English enhancement workshop was provided to the undergraduate students. Class observation and coaching of the undergraduate students were carried out by the English instructor.

Collaboration took place in the enhancement workshop between fellow undergraduate students, the undergraduate students and their secondary school students, and the undergraduate students and their English instructor. Collaborative learning encourages learners to help one another in solving problems and accomplishing tasks. In the workshop the undergraduate students needed to work face-to-face and interact with their fellow undergraduate students through discussions. Through collaboration, they would know their individual and group differences and develop social skills which in turn improve their face-to-face communication skills with people. Moreover, vicarious experiences will be developed by social models through observation of peers (Schunk et al., 1987). Vicarious experiences picked up by the undergraduate students in the process could help them understand their own ability better and self-efficacy could be developed.

In the collaboration between the undergraduate students and their secondary students, both sides developed a professional liaison in the tutorial class. Through tutoring and teaching these students, the undergraduate students could understand their difficulties in learning English by observing and listening. This would gradually allow the undergraduate students to understand their own English learning problems through mirror effect.

Apart from collaborative learning with students, collaborative learning also took place when the undergraduate students interacted with their English instructor. Teacher usually acts as a role model for students. Through collaborating with the English instructor, the undergraduate students might strengthen their self-efficacy by both vicarious experiences and positive appraisals from the English instructor.

4.3.3 Ethical considerations

Approval of the study was obtained from the Ethics Committee of The Hong Kong Institute of Education which was subsequently retitled The Education University of Hong Kong

on May 27, 2016. All participants were informed of the purpose and nature of the study and their written consent obtained. Confidentiality and anonymity were assured. Data obtained were used in this study only, and all raw data would be destroyed after the study was completed.

4.3.4 Data collection

A semi-structured focus group was conducted with the undergraduate students to understand the feasibility of the collaborative learning, their perceptions of self-efficacy and engagement in learning English. The interview questions were developed based on the constructs of the conceptual framework in the first cycle of the action research. In addition, language self-efficacy and learning engagement were measured pre- and post- the collaborative learning. Language self-efficacy was measured by four basic English skills whereas the engagement in learning was by the Motivated Strategies for Learning Questionnaire (MSLQ). Feedback questionnaires on the English tutorial classes from both the secondary school students and the English instructor were collected.

4.3.5 Instruments

4.3.5.1 Language self-efficacy scale

A language self-efficacy scale was used to assess self-efficacy in English. The ten items in the scale are English learning tasks involving the use of the four basic skills namely reading, writing, speaking and listening, and correct grammar. This scale is found to have high internal consistency (Alpha reliability coefficient = 0.89) as well as test-retest (after 2 weeks) stability (Pearson $r = 0.93$, $p < 0.01$) (Wong, 2005). Item-total-correlations computed for the Wong's pilot showed that all ten items correlated significantly ($p < 0.001$) with the total, with correlation values ranging from 0.48 to 0.83 (Wong, 2005).

4.3.5.2 Motivated Strategies for Learning Questionnaire (MSLQ)

The Motivated Strategies for Learning Questionnaire (MSLQ) was used to assess the students' engagement in learning English. The MSLQ is a self-reporting instrument that includes 81 items developed to measure students' motivation with respect to value, outcome expectancy, affective components, cognitive and metacognitive strategies, and use of resource management strategies. The internal reliability of different components is presented in Table 4.1 below. Overall, the Cronbach's alphas are robust, ranging from 0.52 to 0.93. The confirmatory factor analyses had been performed. The goodness of fit index and the root mean square residual range from 0.77 to 0.78 and 0.07 to 0.08 respectively. These data indicate that the MSLQ shows reasonable factor validity (Pintrich, Smith, Garcia, & McKeachie, 1991).

Table 4.1: Item and Scale statistics of MSLQ (Pintrich et al., 1991)

		Internal reliability coefficients (Cronbach's alpha α)
Part I: Motivation Scales	Intrinsic Goal Orientation	0.74
	Extrinsic Goal Orientation	0.62
	Control of Learning Beliefs	0.68
	Self-Efficacy for Learning and Performance	0.93
	Test Anxiety	0.80
Part II: Learning Strategies Scales	Rehearsal	0.69
	Elaboration	0.76
	Organization	0.64
	Critical Thinking	0.80
	Metacognitive Self-Regulation	0.79
	Time and Study Environment	0.76
	Effort Regulation	0.69
	Peer Learning	0.76
	Help Seeking	0.52

4.3.6 Data analysis plan

Paired t-test was used to test the pre- and post-program differences in the language self-efficacy and engagement in learning. The significance was set at 0.05 level. The semi-structured interview was audio-recorded and transcribed verbatim in Chinese. All the transcribed verbatim was translated into English. The transcribed verbatim was coded and underwent qualitative thematic analysis as described by Braun and Clarke (2006) to examine the process of collaborative learning and the participants' responses. The process of data analysis of thematic analysis has mainly six steps. A report of the analysis was produced by using NVivo 8.

4.4 Stage 4: Reflecting on Data, Planning Informed Action

4.4.1 Sample Characteristics

A response rate of 100% (N= 5) was achieved, comprising 20% male and 80% female students. All undergraduate students were Chinese, aged between 20 to 25 years old. They were studying degree courses in FLASS. With respect to the distribution of the students, four (60%) were from year one and one of them (40%) was from year three. The demographic characteristics of the sample were shown in Table 4.2 below.

Table 4.2: Demographic characteristics of the sample (N = 5)

Demographic characteristic		Number of students and percentage (No., %)
Gender	Male	1, 20
	Female	4, 80
Age	20-25	5, 100
Ethnicity	Chinese	5, 100
Year of study	Year one	3, 60
	Year two	2, 40

4.4.2 Results on collaborative learning

A semi-structured interview and pre- and post- questionnaires were conducted to explore the feasibility and the effect of the collaborative learning. The undergraduate students' perception over increased self-efficacy and engagement in learning English after participation of this collaborative learning were also investigated. Three main themes and seven subthemes were collected. The collected data covering the main themes and subthemes are summarized in Figure 4.2 on the next page.

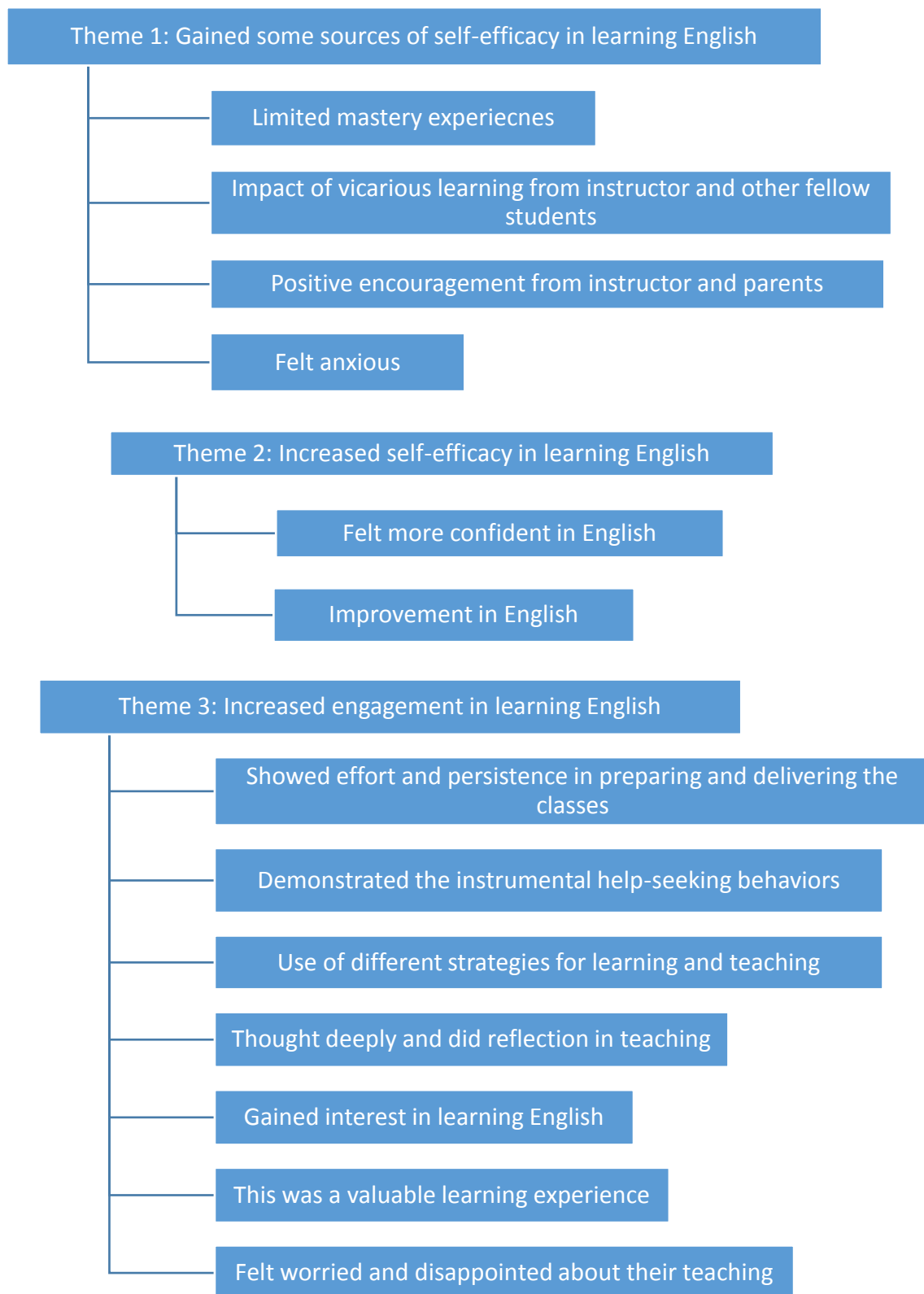


Figure 4.2 Themes and sub-themes in the first cycle of the action research.

4.4.2.1 Theme 1: Gained some sources of self-efficacy in learning English

The undergraduate students perceived an increase in sources of self-efficacy in learning after finishing the collaborative learning. All students made effort to improve their English by using different strategies in learning and teaching. One of them expressed that he discovered the strengths and weaknesses of his English during teaching. Going through the process of the preparation of teaching materials, he clarified his teaching strategies. One student described that he discovered his English weaknesses during the preparation of the teaching materials. This process helped him familiarize with English by spotting out some common errors. In addition, he could revise his English usage through teaching. Another student mentioned that the program could consolidate his foundation in English because he had to find extra supplementary exercises to help students learn grammar and build vocabularies. The subthemes related to ‘gained some sources of self-efficacy in learning English’ will be discussed in more detail in the following sections.

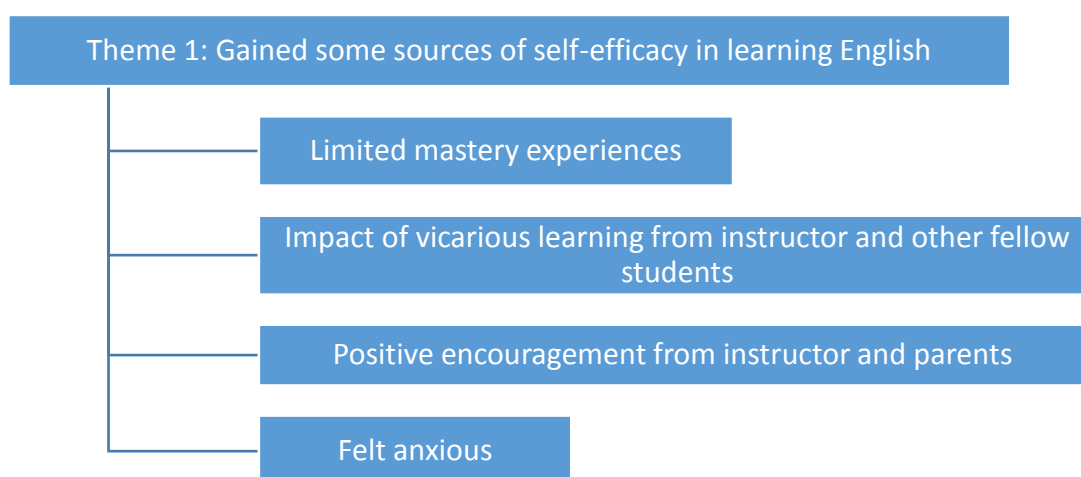


Figure 4.3 Theme one and the subthemes of the first cycle.

Sub-theme: Limited mastery experiences

About the mastery experiences, a majority of the undergraduate students had previous experiences in teaching though the nature of their previous teaching experience was different. Four of them had teaching experiences in one-to-one tutoring; the remaining one had experience in teaching primary school students and teaching martial arts. All of them had successful previous performance and did not have any bad experience in prior teaching. However, most of them thought that their English was not good enough.

'I used to be scared of the English language, and I had bad grades' (S1)

'I used to be confused with grammar and tenses, and I just stayed half-baked' (S2)

Sub-theme: Impact of vicarious learning from instructor and other fellow students

All of the undergraduate students claimed that the English enhancement workshop was 'very useful', 'helpful' and 'it is good to gather a class like this'. This in turn helped them to equip some basic teaching skills and enabled them to see the instructor as the role model of a teacher. From the verbatim transcripts, it was noted that they agreed that the instructor was a good role model. Apart from modeling the instructor, the undergraduate students thought that the workshop allowed them to learn from one another through observation and highlights on common mistakes.

'English workshops are helpful. Our instructor provided us with an insight into how a teacher should present her image. I could learn how to be confident, she showed it through obviously. Then I would try to imitate her when I teach'. (S1)

'English workshops are quite useful, because we had a chance to hear how the students are taught. Wrong methods then can be avoided'. (S2)

'I also think that it is good to gather a class (workshops) for that'. (S3)

Sub-theme: Positive encouragement from instructor and parents

The undergraduate students received positive encouragement from the workshop instructor and the parents. One undergraduate student recalled that she was praised by her parent during the preparation of the teaching materials. Her parent described her as self-disciplined to read English materials. And it was one of the motivations that made her read more books. Throughout the English enhancement workshop and the class observation, the undergraduate students generally felt that the instructor provided them with helpful and practical opinions. After adopting the instructor's suggestions, they thought that their classes were more successful and had better results.

'Instructor would provide me with useful and practical suggestions. I am able to apply. So I tried that, and I could see better results'. (S1)

'The advice was very to-the-point, meaning she would formulate a suggestion according to your specific issue'. (S2)

'As now I would sometimes prepare for my classes, my mother would say: "wow, you are so self-disciplined?" and I would say: "Yes, I am a good girl now", and then I would read more books'. (S3)

Sub-theme: Felt anxious

As the workshops were run in English, all of the undergraduate students needed to use English in discussions and to demonstrate teaching. Two undergraduate students felt anxious before and during the workshops. One undergraduate student thought that the workshops were quite good to give her a chance to speak in English. During the workshop, she felt more relaxed. About delivering the tutorial class to secondary school students, one undergraduate student felt anxious when she spoke to students in English. Finally, this student claimed that she felt less anxious when she faced students after joining this collaborative learning.

‘But what was different was that I felt even more anxious after the sessions (transcriber’s note: workshop sessions). That is because instructor appeared to me as a model English teacher, and I am far from that’. (S1)

‘As we had to speak in English, I felt anxious at workshop but I think that’s quite good, at least there’s a chance for me to give it a try. During the workshop, slightly more relaxed’. (S2)

4.4.2.2 Theme 2: Increased self-efficacy in learning English

Students’ judgments about their capabilities in English were important in showing the enhancement of students’ self-efficacy. The subthemes related to ‘Increased self-efficacy in learning English’ will be discussed in more detail in the following sections.



Figure 4.4 Theme two and the subthemes of the first cycle.

Sub-theme: Felt more confident in English

A majority of the undergraduate students felt more confident in English after joining this collaborative learning. Some students claimed that they found English was actually not that hard after they revised the fundamentals. One also mentioned that she gained confidence and felt capable of handling English teaching to secondary school students after joining this collaborative learning.

'Raising my confidence in my English language skills'.

'We tried to use English as much as possible. I felt confident at her classes. I spoke very fluently. I felt good about myself'.

'I used to think English was very difficult; my English grades weren't very good. But to look back now and clarify certain false concepts, I think it's actually not that hard. Why couldn't learn better before? Yes, that's the feeling'. (S1)

'Increased in confidence.I think I can handle it'. (S2)

'And now I would learn English once again, and would think that they're getting easier. I would treat that as relearning English.'

'Everyone became more confident and contented. I think that's quite good.' (S3)

When improvement in English was discussed, all of the undergraduate students indicated improvement through preparation of teaching materials and delivery of tutorial classes. This finding is consistent with a significant increase in the mean scores on the language self-efficacy scale. The mean increase in language self-efficacy score was 1.2, 95% CI = 0.027 to 2.13. The students had significantly increased in their language self-efficacy scores ($t = 3.57$, $df = 4$, $p = 0.02$)

Sub-theme: Improvement in English

The undergraduate students expressed their views about improvement in the different aspects of their English. The majority believed that they had improvement in writing and reading as they needed to prepare the teaching materials. They indicated that their English foundation such as the use of grammar, sentence structures had improved through the preparation of teaching materials. They had to read a lot of books which enriched their vocabularies and sentence structures. One undergraduate student observed that she had a lot of English grammar lessons with her students and she now could avoid the common grammatical mistakes. Some students mentioned that because they had to select appropriate level of video clips for teaching to stimulate the learning interest of the class their own English listening skills had improved. One student felt that she had improved in speaking. However, two undergraduate students commented that there was no improvement in speaking.

'Improve my familiarity with certain English words. Improvement in reading and writing because I have to read a lot of books....watch and select clips of movies...that is good for my listening....in terms of writing, I have taught them a lot of grammar, so I have become more aware of grammatical mistakes myself, which is an improvement'. (S1)

'I know more vocabularies now....I would provide them with articles to read from time to time, it helps with wording and structuring of articles'. (S2)

'I have revisited these materials; I would think "oh, maybe I can try to use that, maybe when I try to teach them how to make a sentence richer while composing sentence structures, to make it longer and more detailed. That is actually useful for me too".'

'Improvement in writing...'(S3)

'Improvement in speaking'. (S4)

'I don't know if it's because of this program or not, my English skills improved'.

'I would read about tenses learnt in Form 2, which I found very difficult, and find that they are actually quite easy'. (S5)

4.4.2.3 Theme 3: Increased engagement in learning English

The undergraduate students expressed that they had increased their engagement in learning English since joining the collaborative learning. However, there was no significant increase in the mean scores of the MSLQ. Although there were no significant differences in the pre- and post- mean scores of MSLQ, it was nonetheless worthwhile to note that there was a noticeable increase in all sub-scales of the learning strategy scale when comparing the paired t-test of the pre- and post-MSLQ scores.

The subthemes related to 'Increased engagement in learning English' will be discussed in more detail in the following sections.

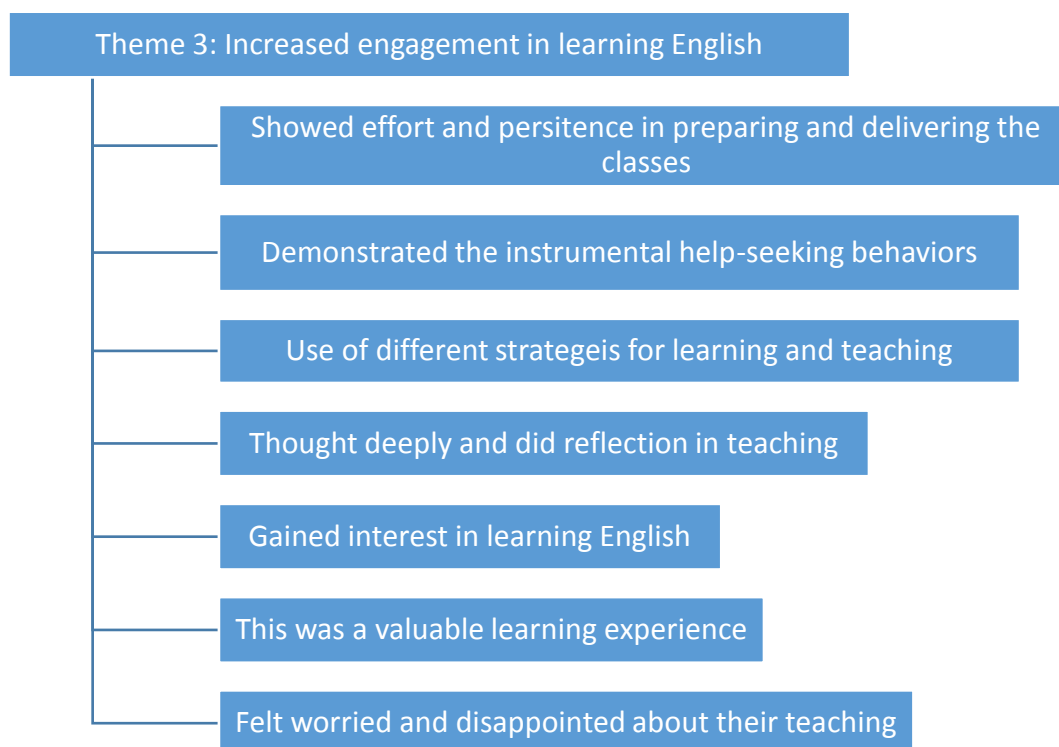


Figure 4.5 Theme three and the subthemes of the first cycle.

Subtheme: Showed effort and persistence in preparing and delivering the classes

Based on the findings from the student interviews, the undergraduate students demonstrated effort, persistence and instrumental help-seeking behavior. All undergraduate students finished twelve tutorial classes. They showed effort and persistence in preparing teaching materials and delivering tutorial classes.

‘When I assigned exercises, because their levels were so different, I had to assign secondary school materials to the capable students and my self-made exercises to the others’.

‘I had to watch a lot of movies and pick the ones where English was spoken clearly...’. (S1)

‘The time constraint- I had to teach on Monday and Wednesday. Once I finished Monday, Wednesday came, so tight. The solution is to do the preparation one week ahead’. (S2)

‘Rehearsal. To practice what I would say the next day. If I think of a sophisticated word that I would use in lesson that I am not familiar with, I would learn more about it first, so that the tutorial would run more smoothly’. (S3)

Subtheme: Demonstrated the instrumental help-seeking behaviors

One undergraduate student noticed that her secondary school students were at different English levels though they were studying in the same Form. She found additional exercises from some secondary school textbooks and developed extra exercises to suit their individual levels.

‘Because I’m not sure if the students understand what I am talking about, I would ask my Form four friends to listen to my trials on days when I do preparations....So after that if I become unsure of something I would find my friends who are majoring in

English, because some of them are really good at English. I would ask them immediately when it comes to something I don't understand and after they teach me I would go back and practice and think about what my students could possibly ask'. (S1)

Subtheme: Use of different strategies for learning and teaching

To select appropriate level of teaching materials, the undergraduate students explained that they had to watch many movie clips to decide which scenes were worth discussing and then picked the ones with English spoken clearly.

'They were bored, so I would think of other ways, for example, to produce some sentence-matching exercises and play video, and the drawing exercise'. (S1)

'I would also find exercises for them to do. I would find relevant exercise for them to do, but the atmosphere was boring. I heard from the workshop, the advice to play movies and videos in class, and I tried to find videos to share with them....so now through online songs or video clips'. (S2)

Subtheme: Think deeply and do reflection in teaching

They wrote teaching reflections after each lesson. They engaged in continuous search for ways of improvement in their teaching.

'When I prepare the lessons, I would think of ways to arouse their interest'. (S1)

'When I have to teach others, I try to find ways to make it clearer for myself, especially for grammar'. (S2)

'I think there's problem in my teaching method...In the tutorial that followed, I used the solution suggested by the instructor; I revised the material again at home and so the next tutorial went better'. (S3)

'after a tutorial I would start thinking about what special method I can use in the

next class...I will think if there is any new method that can help them memorize or learn better'. (S4)

'I continuously think of newer ways to teach them; like searching for interesting clips on YouTube'. (S5)

Subtheme: Gained interest in learning English

All undergraduate students showed more interest in learning English.

'I do gain more interest in English....I will take the initiative to gather information from libraries and watch movies in English, and listen to English songs. Now I like English more than ever'. (S1)

'I have more interest after delivering the classes'. (S2)

'Increase in interest for me as well'. (S3)

'Enhanced, because they reacted to my ways of teaching....that makes me work harder and become more interested'. (S4)

'Umm, yes to a certain extent'. (S5)

Subtheme: This is a valuable learning experience

All undergraduate students felt that this collaborative learning was a valuable learning experience. They got a chance to interact with secondary school students and this helped their future career.

'I think this is a rare opportunity (interact with secondary school students and being a teacher)'. (S1)

'I think what I have gained is the ability to manage a class'. (S2)

'This project is very meaningful'. (S3)

'I think this will help my internship in the future'. (S4)

'Found a way to interact with students'. (S3)

'I have learnt the organization of teaching materials'.

'Gains from communicating with students and I've learnt what expression to put up in front of students'.

'How to control the interaction and relationship with students...I realized it is possible now. Yes'. (S4)

'This is a very valuable experience. It is beneficial to both our students and us'.

'I've gained from this a sense of responsibility'.

'I also gained on preparation skills in teaching and communication skills with students'. (S5)

Subtheme: Felt worried and disappointed about their teaching

Two undergraduate students felt worried about their teaching because they had limited time to prepare the teaching materials. One of them felt disappointed about her teaching as she could not see any improvement in her students.

'If I was to talk about results, I would say I am really disappointed. It may be because I'm still teaching; I've only taught half of the syllabus, but I feel that they are starting to be less interested. Less engaged than I imagined they would have been'.

'Felt tired....always feel that I can never finish teaching the materials I have prepared, and then I'll have to decide whether I should carry on in the next tutorial..'. (S1)

'Not very good. Sometimes, maybe the time management just isn't very good....I think I did my best, but I didn't know how to grade because I can't find way to assess whether they have learnt what I've taught..'. (S2)

'I grade myself as not good about my performance as I can't see any improvement in my student. For myself, I now have more courage to communicate with students'. (S3)

4.4.2.4 Feedback of the secondary school students

Apart from investigating into the two research questions, the feasibility of the collaborative learning was also tested in this first cycle of the action research. Feedback of the secondary school students and report from the English instructors were collected.

The fifteen secondary school students joining the English tutorial classes were of 14 to 19 years old with 53% male (n=8) and 47% female (n=7). Out of them, three were studying Secondary two, and six each were studying Secondary three and four respectively. Their duration of schooling in Hong Kong is presented in Table 4.3 below.

Table 4.3: Duration of schooling of the secondary school students in Hong Kong (N=15)

Duration	Number of students and percentage (No., %)
Less than 1 year	(2, 13)
1 year	(4, 27)
2 years	(1, 7)
3 years	(3, 20)
More than 5 years	(5, 33)

All of the students (N=15) had completed and returned the survey questionnaires and reported enhancement in various English skills. Forty-seven percent (n=7) thought that they had improved in oral and pronunciation; 20% (n=3) believed that they had improved in both reading & writing and vocabularies; and 33% (n=5) reported that they had enhancement in grammar. Most students (73%, n=11) rated increase in interest in learning English. One rated

that the interest was same as usual and two had no increase in interest in learning English.

In terms of the overall satisfaction of the tutorial classes, most (67%, n=10) of the students rated the overall satisfaction as 80%; two (13%) rated it as 60% and 95% respectively; and the remaining three (20%) rated the overall satisfaction as 100%. When asked whether they had any suggestions on room for improvement in the tutorial classes, 40% (n=6) of the students responded that they had no suggestions. Most of them (53%, n=8) requested to increase the number of lessons, to enrich the content in grammar and oral skills, and to use a variety of teaching methods. One of them thought that it would be better to recruit professional teacher to teach tutorial classes. Most of the students (87%, n=13) reported that they would like to join these tutorial classes again because they wanted to improve their English. Two of them rated that they would not join future tutorial classes because they were busy in their school study.

4.4.2.5 Feedback of the English instructor

The English instructor wrote the report on the collaborative learning. A total of two sessions of English enhancement workshops were run for the undergraduate students at the beginning phase of the tutorial classes which was followed by eight sessions of on-site class observations by the workshop instructor. The workshop instructor stated that the objective of improving the undergraduate students' English standard through a proactive and engaging teaching experience proved to have worked for 80% of the undergraduate students. She also commented that those who benefited most from this collaborative learning were the ones who ventured out to embrace the teaching experience, spent time and effort to plan and was able to gain rapport with their fellow FLASS students; those who benefited less tended to have personal confidence issues with their own English language proficiency, fail to spot students' response and not able to respond in a timely manner, and not have a full picture of how to plan lesson effectively. About the teaching methodology of the undergraduate students, the

workshop instructor commented that the undergraduate students gained some inspirations and practical tips in such area.

4.4.3 Discussion

4.4.3.1 Sources of self-efficacy and self-efficacy

The results found are consistent with the findings of Britner and Pajares (2006), and Wang and Pape (2007). These results support that there are positive correlations between sources of self-efficacy and self-efficacy (Britner & Pagares, 2006; Wang & Pape, 2007). The undergraduate students attributed the ‘gaining confidence in learning’ and ‘capable of handling teaching English to secondary schools’ to the main themes/causes that contributed to the enhancement of their self-efficacy in learning English. Self-efficacy plays a significant role in predicting human performance in many areas (Bandura, 1993). The enhancement of self-efficacy could have been due to the increase in some sources of self-efficacy to the undergraduate students. Although not all undergraduate students had prior experience in tutoring a class and all thought that their English was not good, they gained mastery experience through the process of joining this collaborative learning. Some students thought that their work on English fundamentals made them discover that English was actually not that hard. This change came from their initial mastery experiences in the preparation of teaching materials and then followed by additional mastery experiences through delivering them in tutorials. Bandura (1997) stated that vicarious experience is important when student had limited mastery experiences. The undergraduate students perceived vicarious persuasion from their workshop instructor and fellow students. The workshop instructor provided those vicarious English teaching influences through demonstration lessons as well as verbal persuasion when the workshop instructor taught them. With this kind of ongoing support, the undergraduate students

felt themselves capable of achieving mastery experiences in teaching English. This would in turn ideally lead to continued English teaching whereby the undergraduate students were likely to persist in their English learning even when faced with obstacles. According to Britner and Pajares (2006), social persuasions serve as an enhancement to mastery experiences. Students who were told by significant others that they had the ability to master new or difficult science tasks were more likely to persevere in the face of challenges and mobilize the effort needed for efficacy-building successes. Therefore, appropriate and realistic encouragement to students from significant others are important. In this study, the undergraduate students perceived positive encouragement from both the workshop instructor and their parents. They generally felt that the instructor had provided them with helpful and practical opinions. They experienced more success after adopting the instructor's suggestions.

The current finding also agrees to the previous study that teachers' self-efficacy and ability had effects on learners' English language self-efficacy (Egel, 2009). Gorsuch (2009) also stated that classroom climate and the interaction between peer students and teachers affected learners' self-efficacy. Interestingly, this study found that one undergraduate student was motivated to read more books after being praised by her parent, the significant other, during her preparation of teaching materials. As regards the relationship between the physiological states and the academic self-efficacy, some researchers have found that physiological states predict mathematics self-efficacy (Lopez & Lent, 1992; Matsui et al., 1990) and some reported that it did not (Lent et al., 1991). In this collaborative learning, two undergraduate students felt anxiety in speaking English during the workshops and one of them felt anxious when she was speaking to students in English. Although both of them claimed that they felt less anxious after joining this collaborative learning, it is important to address students' fear and anxiety in the next cycle of the study.

4.4.3.2 Engagement in learning English

Students in general are more engaged in tasks that are of their interest, value, and affect. The most significant finding in this cycle of study is that all participating students felt they were more interested in English after joining this collaborative learning. Moreover, all of them described this collaborative learning as ‘valuable experience’, ‘meaningful’, and ‘rare opportunity’. One student stated that this collaborative learning benefited both themselves and the secondary school students. She stated that she gained from this a sense of responsibility. Some commented they had gained the ability to manage a small class. They also found that these experiences helped their future career as they gained some teaching experience and learnt how to communicate with secondary school students. As this collaborative learning was to help some new immigrants from Mainland China or low income family's students, students were motivated to join the program by their sense of moral responsibility towards these secondary school students (Ames & Ames, 1984).

Most of the undergraduate students felt delighted and were proud of their work. The result of this cycle was consistent with the various results on self-efficacy and academic achievement. Zimmerman (2000) showed that self-efficacy is significantly related to academic interest, motivation as well as growth of cognitive competencies.

However, some undergraduate students felt tired and disappointed about the performance of their secondary school students. They expressed that they were worried about their time management in lesson preparation and did not know how to maintain secondary school students' English levels. This might have been due to the time constraint in this pilot study. All twelve lessons had to be held within two and a half months. In the preparation of teaching materials, they needed to prepare two lesson plans in only a few days as there were two lessons every alternate week. All these were on top of their normal school work from their undergraduate programs. Moreover, some undergraduate students were disappointed with their teaching as

they felt difficult to raise the secondary school students' English standard. Again, it was quite difficult for the secondary school students to improve their English standard significantly for attending intensive classes in such a short period of time.

There were two tutorial lessons in the weeks that tutorials took place; classes were scheduled for Mondays and Wednesdays. One undergraduate student stated that the preparation time was little. She solved this problem by doing preparation work one week ahead. One other undergraduate student tried to rehearse the teaching one day before to ensure that lesson could be run smoothly in the following day. The report of the workshop instructor also confirmed that most undergraduate students had adequate preparation for classes.

The undergraduate students demonstrated cognitive engagement behavior by using various strategies for learning and by considering critically the materials to be delivered. They tried different strategies to stimulate their students' learning interest and to capture their attention, like using movies, YouTube videos, sentence-matching exercises, online songs, and drawing exercises etc. Apart from the use of different strategies, the undergraduate students showed metacognitive behavior by performing reflections after teaching. They wrote teaching reflections after each lesson and graded themselves in a scale of 1 to 10. They engaged in continuous search for ways of improvement in their teaching. Evidence as shown in Figure 4.5 demonstrates that the undergraduate students had engaged in reflective actions such as planning, thinking over lessons with a view to making changes for the next lesson, and trying different strategies to stimulate secondary school students' learning interest (Ur, 1991). Reflection on experience has been acknowledged as crucial to learning by Bandura (1997). Wyatt's qualitative study also revealed that experience reflection supported the development of self-efficacy (Wyatt, 2011).

Based on the positive response from the three parties viz. the undergraduate students, the secondary school students and the workshop instructor, the collaborative learning using English as the subject had helped the undergraduate students' English learning in a positive way. And it was feasible to continue to the next stage.

4.4.4 Turning findings into action plans

Based on the findings and a further review of the literatures, some strategies for helping students to improve self-efficacy and engagement in learning English could be further explored.

In health education, health care professionals are usually involved in teaching adult patients about knowledge for improving health. Apart from health knowledge, the most important thing to the health care professionals is to motivate patients to change their bad habits. Patients' compliance with the professional advice given is an important step to bring health benefits in health education. Patients will adhere to a prescribed plan of care if health care professionals can establish mutual goal setting and planning of care with patients. King's goal attainment theory was developed in 1981 (King, 1981). This theory provides ideas for helping patients to achieve health related goals and provides guidance for goal achievement in any practice settings. King incorporates personal systems, interpersonal systems and social systems in her conceptual system. Through communication, nurses and patients set mutual goals, methods to achieve goals and they give feedback to each other. Observation of behavioral changes occurs in the form of interaction and transaction (King, 1971, 1981, 1997, & 1999).

In the next cycle, King's goal attainment theory would be applied with modification to adult education. Health care professional-patient relationship is similar to teacher-student relationship. As in the interaction between health care professionals and patients, teachers and students communicate with one another when discussing goals, needs and values with the health care professional/teacher maintaining a guiding role. Establishment of mutual goals

could be done after exchanging ideas and thoughts. Once goals are set, teacher and students could collaborate to formulate the means to achieve the goals. Observable behaviors occur in the form of interaction and transaction. After transaction, teachers and students can give feedback to each other, and the cycle repeated (King, 1971, 1981, 1997, & 1999). While students perform tasks, they can observe their own performance and evaluate their own goal progress. When students recognize their skills are improving and that they are making progress towards their goals, they will experience high self-efficacy, which should spur them on to attaining their goals. In Bandura's view (1989, p. 1175), "human behavior is regulated by forethought embodying cognized goals, and personal goal setting is influenced by self-appraisal of capabilities" (Bandura, 1989, p. 1175). People are more committed to face challenges and strive to meet goals if they have high self-efficacy (Zulkosky, 2009). Then, goal attainments will lead students to set new, even more challenging goals. This cycle aims to develop self-efficacy of undergraduate students in learning English through setting mutual goals after joining the collaborative learning.

With reference to the conceptual framework depicted in Figure 4.6 on p.114, it was expected that adopting King's goal attainment theory in Cycle Two of the collaborative learning might enhance students' learning. Once students recognize their skills are improving and that they are making progress towards their goals, they will experience high self-efficacy, which should spur them on to attaining their goals. Self-efficacy can lead to more engagement and subsequently, to more learning and better achievement (Linnenrink & Pintrich, 2003). The arrow in learning and achievement will revert back to self-efficacy if students can learn better and achieve more.

Based on further review of the two previous action research studies of Liu and Lin (2016) and Wastin and Han (2014), the subject sizes of these two studies covering service learning and pre-service teaching were two to six. In the first cycle of this action research, the G-power

3.1 software was used for calculation. The minimum subject size of 8 in Cycle Two generated the power of 0.97.

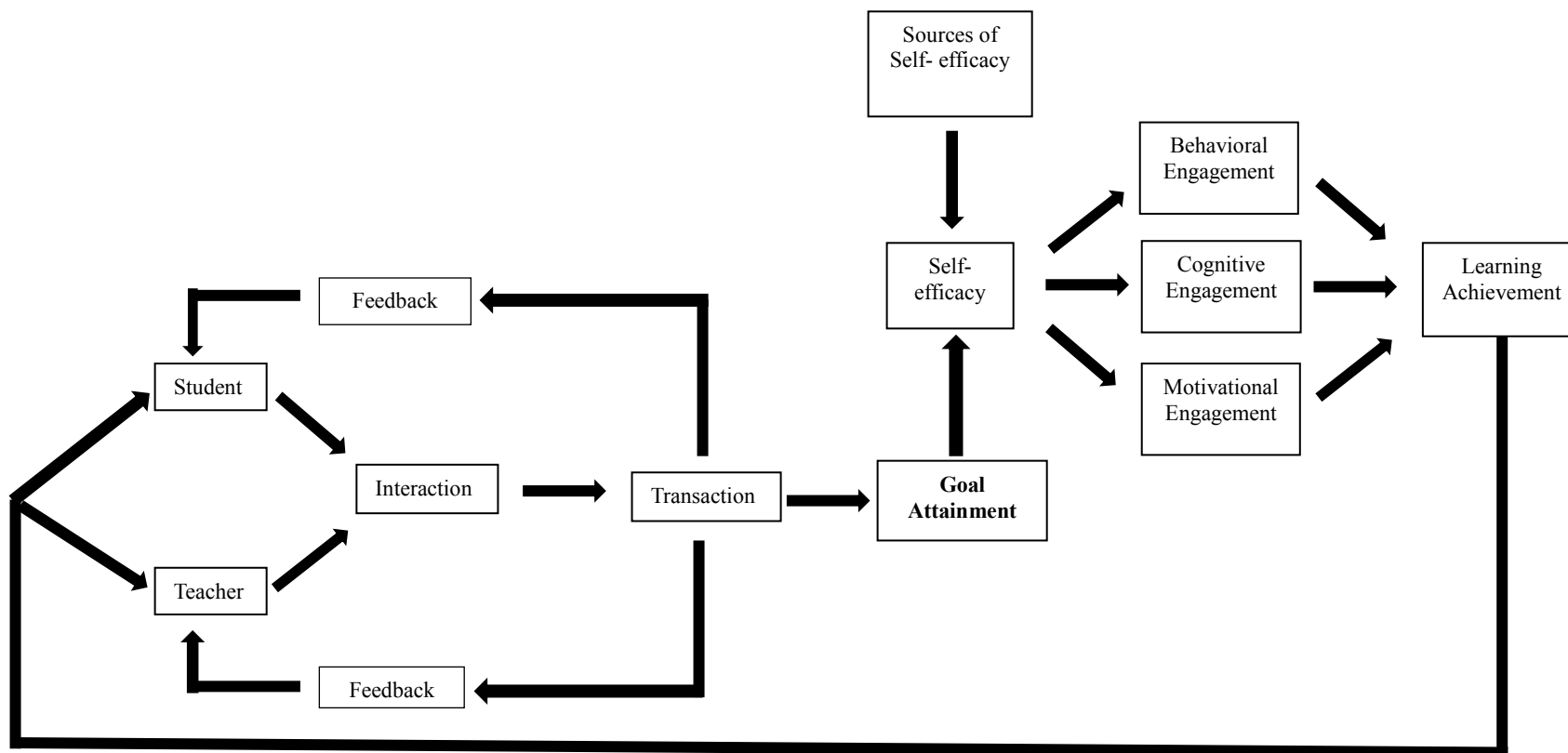


Figure 4.6 Conceptual framework of second cycle of action research. Bandura postulated that there are four sources of influence in people's self-efficacy beliefs. These four sources are mastery experiences, vicarious experience, verbal persuasion and physiological states (Bandura, 1986). Adapted from "General framework for self-efficacy, engagement and learning," by Linnenbrink, E. A., & Pintrich, P. R, 2003, *Reading & Writing Quarterly: Overcoming Learning Difficulties*, 19(2), 122. Copyright 2003 by Taylor & Francis and Adapted from King, I. M, 1999, *Nursing Science Quarterly*, 12(4), 292–296 and King, I. M, 1971, *Toward a theory for nursing* and King, I. M, 1981, *A theory for nursing: Systems, concepts, process*. Copyright 1971 and 1981 by Wiley.



It was found in Cycle One that the undergraduate students' self-efficacy and engagement in learning English correlated positively and significantly with the joining of the collaborative learning. In implementing the collaborative learning, it was noticed that some students were worried about time management and were disappointed about their teaching. To address these issues, there were suggestions for changes in this regard in Cycle Two. These changes included reducing the two lessons to one lesson per week and extending the time of the tutoring program by adding more tutorial lessons in the next cycle.

The workshop instructor made some valuable suggestions to address the quality of the tutorial classes, for example, accuracy of the grammar samples, ability to correct secondary school students' mistakes, and follow-up to ensure progress was made after all tutorial classes. The suggestions were about the quality assurance aspect of the undergraduate students' in-class performance. As the undergraduate students were not from the English major, the workshop instructor recommended that in addition to beefing up the original English content, the workshop should also provide target tutors with some basic guidance on the following:

1. Preparing oneself as a teacher
2. How to prepare lesson plan for individual class and continuity across lessons
3. Where and how to look for teaching aids/materials
4. Broadening of personal interest to engage secondary school students
5. Analyze and understand the root causes of students' problems
6. Problem solving skills

All of the above recommendations were adopted in the next cycle's English enhancement workshop. Apart from the content of the workshop, the quality assurance of the tutorial classes was monitored through more class observations by workshop instructors.

Chapter 5: The Second cycle of the action research

This chapter describes the second cycle of the action research which includes the same four stages as in the first cycle: stage one - clarifying vision and targets, stage two - articulating theory, stage three - implementing action and collecting data, and stage four - reflecting on data and planning informed action.

5.1 Stage 1: Clarifying Vision and Targets

5.1.1 Goals

The purpose of this cycle was to examine the newly devised conceptual framework.

5.1.2 Targets

The target group being studied was the undergraduate students who were studying in the FLASS of EdUHK.

5.2 Stage 2: Articulating Theory

5.2.1 Focus of this stage

The focus of this stage was to ascertain the effect of the collaborative learning on the undergraduate students' self-efficacy and engagement in learning English in the newly devised conceptual framework.

5.2.2 Conceptual framework

With reference to the conceptual framework in Figure 4.6 on p. 114, it was expected that by adopting King's Goal Attainment Theory in this collaborative learning in Cycle Two the students could enhance their learning. The concepts of King's Goal Attainment Theory were

derived from her Conceptual System in 1981. King's system includes concepts on "self, perception, role, communication, interaction, transaction, growth and development, time, space and stress" (King, 1999, p. 293). "Perception is a means whereby individuals experience direct contact with the environment. Perception involves the transaction of the human organism with environmental stimuli ... there is usually some stress in the environment, but that is not necessarily a negative factor" (King, 1971, p.87). Following King's concepts, this collaborative learning focused on processes engaging the individual undergraduate student's self, perception and role, direct contact with the environment, and communication and interaction with the secondary school students and the English instructor. It was transpired that through transaction between peoples, the undergraduate students should demonstrate growth and development after undergoing changes in time, space and stress. King's Goal Attainment Theory was originally used by health care professionals in their work environment, which led to goal attainment.

Once students recognize their skills are improving and that they are making progress towards their goals, they will experience high self-efficacy, which should spur them on to attaining their goals. High self-efficacy can in turn lead to more engagement and subsequently, to more learning and better achievement (Linnenrink & Pintrich, 2003). In this sense the direction of the arrows pointing to learning and achievement in Figure 4.6 on p.114 will revert back to self-efficacy if students can learn better and achieve more.

5.2.3 Research questions

- i. Will goal setting in the collaborative learning enhance the self-efficacy of students in learning English?
- ii. Will the collaborative learning increase students' self-efficacy in learning English?
- iii. Will the collaborative learning increase students' engagement in learning English?
- iv. What will students think about collaborative learning?

5.2.4 Hypothesis

The following hypotheses were formulated:

HA: Collaborative learning improves undergraduate students' self-efficacy and engagement in learning English.

HB: Goal setting in a collaborative learning environment improves undergraduate students' self-efficacy in learning English.

5.3 Stage 3: Implementing Action and Collecting Data

In Cycle Two, a collaborative learning was implemented to help improve the undergraduate student's self-efficacy and engagement in learning English.

5.3.1 Subjects and recruitment procedures

Undergraduate students were recruited by convenience sampling through posting promotional posters in the intranets of FLASS and the campus. The subjects of this cycle were a group of eight students from FLASS.

5.3.2 Collaborative learning

The undergraduate students were assigned to provide English tutorial lessons to the secondary school students in groups of three to four. All selected secondary school students were either new immigrants from Mainland China or coming from low income families whose native language was not English.

Before starting the tutoring program, English enhancement workshops were provided to the undergraduate students. The English enhancement workshops covered core fundamentals and common errors in English learning as well as some basic teaching skills. Class observation and coaching of the undergraduate students were conducted by the English instructor. In the training workshops, the English instructor and the students established learning objectives together and set mutual goals. In the process, the undergraduate students were encouraged to submit at least three learning goals, lesson plans before and reflections after class. Subsequent class observation with supportive coaching was done by the English instructor.

Twenty three students from a secondary school were recruited to join the English tutoring class in Cycle Two. Each tutorial class was manned by an undergraduate student in a group size of three to four and met once per week for around 20 weeks (two semesters excluding the examination period and the public holidays). Details of the tutoring classes are presented in Table 5.1 below.

Table 5.1: Details of the tutorial lessons

	Details
Target students	Forms 2, 3 and 4
Target number of groups	Eight
Number of students in each group	Three to four
Total number of students	23
Number of tutors in each group	One
Total number of tutors	8
No. of tutorial lessons	20
Duration of each tutorial lesson	90 minutes
Total number of hours for each student	30
No. of workshops for tutors	2
Duration of each workshop	3 hours
No. of class observations + focus group meetings	5

5.3.3 Ethical consideration

Approval of the study was obtained from the Ethics Committee of EdUHK. All participants were informed of the purpose and nature of the study with their written consent; and confidentiality and anonymity were assured. They were told that data obtained would solely be used for research purposes, and all raw data would be destroyed after the study was completed.

5.3.4 Data collection

A semi-structured focus group was conducted with the undergraduate students to help them understand the collaborative learning, and their perceptions of self-efficacy and engagement in learning English. Besides, the interview questions were developed based on the constructs of the conceptual framework in the second cycle of this action research. In addition, self-efficacy and engagement were measured pre- and post-delivery of the collaborative learning. Language self-efficacy was measured by four basic English skills whereas engagement in learning was by the adapted Motivated Strategies for Learning Questionnaire (MSLQ). At the end of the program, feedback questionnaires on the English tutorial lessons from both the secondary school students and the English instructor were collected. With respect to the subject size in this study, the G-power 3.1 software was used for calculation and the minimum subject size of 8 of Cycle Two generated the power of 0.97.

5.3.5 Instruments

5.3.5.1 Language self-efficacy scale

A language self-efficacy scale was used to assess the self-efficacy in English. The ten items in the scale are English learning tasks using the four basic skills of reading, writing, speaking and listening, and correct grammar. This scale is found to have high internal consistency (Alpha reliability coefficient = 0.89) as well as test-retest (after 2 weeks) stability (Pearson $r = 0.93$, $p < 0.01$) (Wong, 2005). Item-total-correlations computed for the Wong's pilot showed that all ten items correlated significantly ($p < 0.001$) with the total, with correlation values ranging from 0.48 to 0.83 (Wong, 2005).

5.3.5.2 Adapted Motivated Strategies for Learning Questionnaire (MSLQ)

The Motivated Strategies for Learning Questionnaire (MSLQ) was used to assess the students' engagement in learning English. The MSLQ is a self-reporting instrument that includes 81 items developed to measure students' motivation with respect to value, outcome expectancy, affective components, cognitive and metacognitive strategies, and use of resource management strategies. Overall, the Cronbach's alphas are robust, ranging from 0.52 to 0.93. The confirmatory factor analyses had been performed. The goodness-of-fit index and the root-mean-square-residual range from 0.77 to 0.78 and 0.07 to 0.08 respectively. These data indicate that the MSLQ shows reasonable factor validity (Pintrich et al., 1991).

To ensure the validity of MSLQ in measuring the context of this study, an adapted MSLQ was used. As for the construct validity about this instrument, content validity test was used. Content validity refers to "the degree that the instrument covers the content that it is supposed to measure." (Yaghmale, 2003, p. 25). We intended to measure "the measurable extent of each item for defining the traits and the set of items that represents all aspects of the traits." (Yaghmale, 2003, p. 25). The changes to the MSLQ were mainly in the wording of "class" and "grade" to "tutoring class" and "performance" respectively. After changing the wordings, the measurement of content validity of the instrument was performed.

The content validity test was to measure the relevance of the context by a 4-point content validity index (CVI). In this test, three experts with strong experience in conducting research in English were invited. The expert panel was asked to rate the relevance, clarity, simplicity and ambiguity of the content with the 4-point content validity index (CVI). Those content areas with CVI over 0.75 (Yaghmale, 2003) were retained and the rest were discarded. All CVI of this adapted MSLQ were from 0.75 to 1.0.

5.3.6 Data analysis plan

In this study paired *t*-test or Wilcoxon signed-ranks test was used to test the pre- and post-program differences in the language self-efficacy and engagement in learning. The significance was set at 0.05 level.

The semi-structured interview was audio-recorded and transcribed verbatim in Chinese. All the verbatim transcription was then translated into English, which was later coded and underwent qualitative thematic analysis as described by Braun and Clarke (2006) to examine the process of collaborative learning and the participants' responses. The process of data analysis of thematic analysis has mainly six steps. A report of the analysis was produced by using NVivo 8.

5.4 Stage 4: Reflecting on Data and Planning Informed Action

5.4.1 Sample Characteristics

A response rate of 100% (N= 8) was achieved, comprising 75% male and 25% female students. All undergraduate students were Chinese. They were studying degree courses in FLASS. With respect to the distribution of the students, 50% were from year one, 37.5% were from year two and one of them (12.5%) was from year three. The demographic characteristics of the sample were shown in Table 5.2 below.

Table 5.2: Demographic characteristics of the sample (N = 8)

Demographic characteristic		Number of students and percentage (No., %)
Gender	Male	6, 75
	Female	2, 25
Ethnicity	Chinese	8, 100
Year of study	Year one	4, 50
	Year two	3, 37.5
	Year three	1, 12.5

5.4.2 Findings from the second cycle of the action research

A collaborative learning was implemented to help improve undergraduate students' self-efficacy and engagement in learning English. Research Question One was about undergraduate students' goal setting in learning English. And Research Question Two and Three were on whether the collaborative learning could increase students' self-efficacy and engagement in learning English. Undergraduate students were asked to set their goals after discussion with the English instructor in the first workshop. The undergraduate students' perception over goal attainment and enhancement coupled with self-efficacy and engagement in learning English after participation in this collaborative learning were also investigated. A semi-structured interview was conducted after the completion of all tutoring lessons. A majority of the undergraduate (75%) students finished all twenty of the tutorial lessons. Only two of them could not finish all because some of their lessons' time clashed with their field experiences on community services required by their EdUHK's undergraduate programs. For those students who did not complete all the tutoring lessons, exit questionnaires were used to collect their feedback about the collaborative learning. The data from the instruments,

reflections from the undergraduate students, feedbacks from the secondary students and the English instructor, and field notes were collected to support the findings. An outline of the themes and sub-themes from the undergraduate students can be seen in Figure 5.1. Findings from the undergraduate students are presented in quotes to illustrate the themes and the related sub-themes.

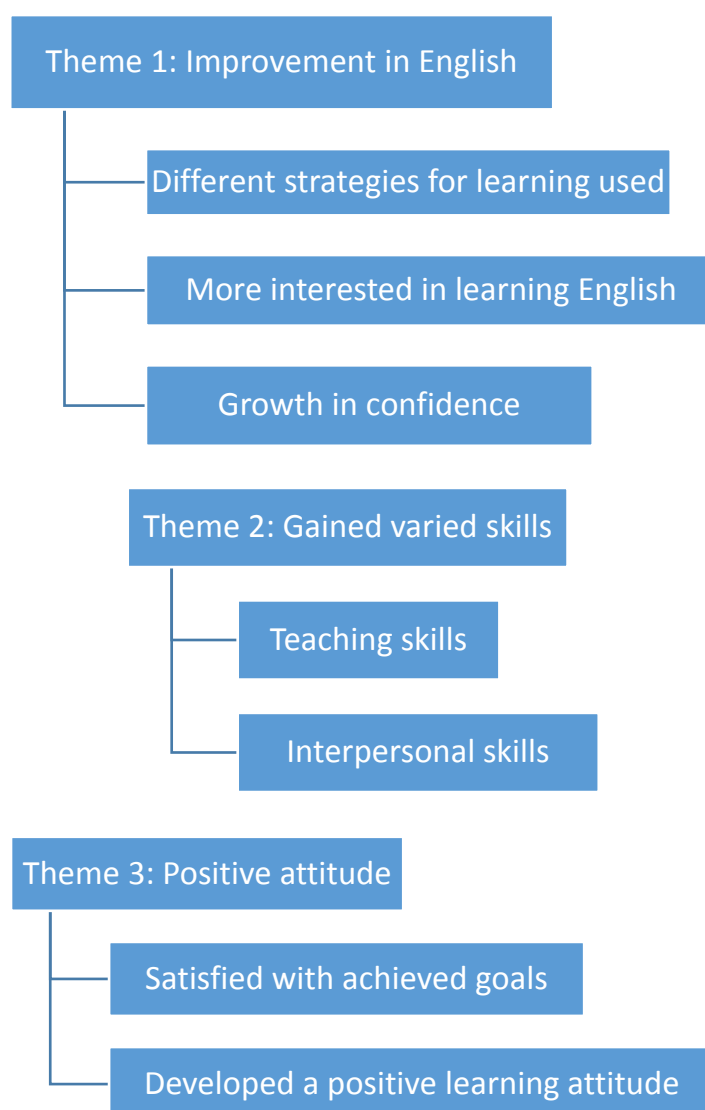


Figure 5.1 Themes and sub-themes in the second cycle of the action research. Data on three main themes and seven sub-themes were collected in the second cycle of the action research.

5.4.2.1 Theme 1: Improvement in English

This collaborative learning aimed to help improve undergraduate students' self-efficacy and engagement in learning English. During the process, the undergraduate students were required to write teaching plans, prepare teaching materials and to deliver tutoring lessons to the secondary school students. During the preparation and teaching process, the undergraduate students used different strategies for teaching English. After the completion of the program, the undergraduate students felt that they were more interested in learning English. In turn, their confidence of using English was also enhanced. The subthemes related to improvement in English will be discussed in more detail in the following sections.



Figure 5.2 Theme one of the second cycle was improvement in English. Students perceived improvement in English by using different strategies for learning, feeling more interested and higher confidence in English.

Sub-theme: Different strategies for learning used

All students made effort to improve their English by using different strategies in learning and teaching. One of them expressed that he discovered the strengths and weaknesses of his English during teaching. Going through the process of the preparation of teaching materials, he clarified his teaching strategies. One student described that he discovered his English weaknesses during the preparation of teaching materials. This process helped him familiarize with English by spotting out some common errors. In addition, he could revise his English

usage through teaching. Another student mentioned that the program could consolidate his foundation in English because he had to find extra supplementary exercises to help students learn grammar and build vocabularies.

'Discovered the weaknesses of my English...improved my familiarity with English.... spotted the common errors in the preparation of teaching ... revised my English usages through teaching ...' (S1)

'Discovered the strengths and weaknesses of English ... clarified my learning strategy... (S2)

'Revised and integrated the English usage ... found some useful vocabularies to teach the students...found extra supplementary grammar exercises for s students (S3)

Moreover, the undergraduate students also made use of different strategies for teaching such as through YouTube videos, movies, and English songs. Besides, some of them selected different teaching materials such as games, songs, reference books, etc. Going through the teaching process, one student was delighted that he could tackle fear in speaking.

'Using Pictionary to teach English ... searched for exercises in libraries ... screened and selected different suitable supplementary exercises ... tackled fear in speaking'.
(S4)

'Tried to use different strategies to learn English e.g. YouTube videos, movies, TV shows' (S5)

'Tried to use different strategies to learn English e.g. English songs' (S6)

Sub-theme: Increased interest in learning English

Nearly all undergraduate students showed more interest in learning English, with the exception of two students where one indicated the program had little impact on him and the other indicated that her interest was maintained.

'More interested in English' (S1)

'Took initiative and interest in learning English' (S2)

'Maintained interest in English' (S3)

'More interested in English' (S4)

'Little impact on my interest in learning English' (S5)

'Enhanced my interest in learning English' (S6)

Sub-theme: Growth in confidence

A majority of the undergraduate students became more confident in using English after joining this collaborative learning. Although one student commented that there was little impact on his confidence in English, he expressed there was a positive impact that enhanced his speaking ability.

'Found ways to explain it clearer ... enhanced my English ... enhanced my speaking ability ... enhanced my confidence. (S1)

'Gained confidence in teaching English ... enhanced confidence in English especially in speaking and writing' (S2)

'My confidence in English language skills will be greatly enhanced.' (S3)

'Boosted my confidence ... managed to use English language as a medium of instruction ... Improvement in speaking ... gained confidence in teaching English' (S4)

'Positive impact, enhanced in speaking ability ... Little impact on my confidence in learning English' (S5)

'Enhanced my confidence in learning English' (S6)

One student ascribed the increase in confidence to the program because he managed to use English language as a medium of instruction in the tutoring lessons. During sharing, one

student reported he had improvement in speaking, which in turn enhanced his confidence in English. The undergraduate students perceived an improvement in English in terms of ‘felt more confident in English’, ‘different strategies for learning used’ and ‘More interested in learning English’. Students’ judgments about their capabilities in English were important in showing the enhancement of students’ self-efficacy. All undergraduate students indicated their improvement through the preparation of teaching materials and delivery of tutorial lessons. This finding is consistent with the significant increase in the mean scores on the language self-efficacy scale. The pre- and post-mean scores on the language self-efficacy scale are presented in Table 5.3 below. The Wilcoxon signed-rank test was used to compare the distribution of the scores between pre- and post-mean scores on the language self-efficacy scale. The mean increase in language self-efficacy scores was 0.88. The Wilcoxon signed-ranks test indicated that the median post-test ranks, $Mdn = 8.40$, was statistically significantly higher than the median pre-test ranks, $Mdn = 7.45$, $Z = -2.10$, $p < 0.036$. The students had significantly obtained higher language self-efficacy scores.

Table 5.3: Wilcoxon signed-ranks test of pre- and post-mean scores on the language self-efficacy scale

Language self-efficacy	Mean	N	Std. Deviation (SD)	Percentiles	Z	p
				Median (Mdn)		
Pre-mean score	7.43	8	0.55	7.45	-2.1	0.036
Post-mean score	8.31	8	0.69	8.40		

5.4.2.2 Theme 2: Gained varied skills

Apart from the improvement in English, the undergraduate students gained varied skills during the process. Especially during the teaching process, they had to organize their teaching materials and to interact with their students. Through these processes, they said that they had gained teaching and interpersonal skills. These subthemes related to ‘gained varied skills’ will be discussed in more detail in the upcoming sections.

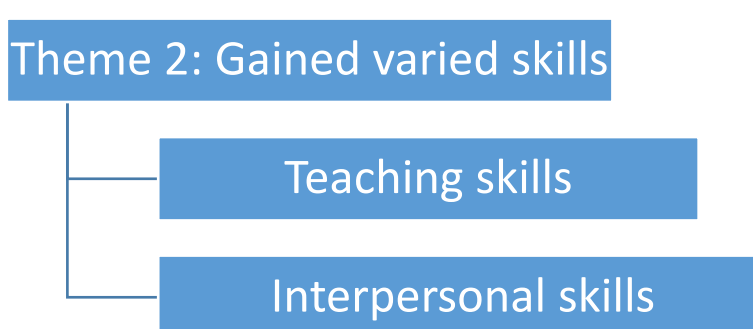


Figure 5.3 Theme two of the second cycle was ‘gained varied skills’. Students perceived gaining varied skills including teaching skills and interpersonal skills.

Sub-theme: Teaching skills

The undergraduate students gained teaching skills via collaborative learning and some of them even gained confidence in teaching.

‘Gained teaching experience ... gained the ability to manage a lesson ... gained implementation skills ... gained confidence in teaching English’ (S4)

‘Gained interest and confidence in teaching English’ (S2)

‘Strengthen the foundation in teaching skills’ (S1)

All tutors tailored their teaching with different strategies and engaged in post-teaching reflection. They supplemented their teaching with various resources, which increased the secondary school students’ interest of learning. In addition, the lessons were more interactive

because the undergraduate students had developed self-confidence in speaking, while the secondary school students were more willing to give feedback. Besides textbooks exercises, the undergraduate students arranged a variety of activities to arouse the secondary school students' interest. Activities such as playing games, watching movies or YouTube videos, reading newspaper articles, doing exercises, finding reference books, etc. were some of the ways to motivate the secondary school students to apply knowledge and skills, even when at home. Moreover, the secondary school students were reminded to strengthen their knowledge by recapping and revision.

'Screened several supplementary exercises and used them as teaching materials...

using music video ... scrabble ... games to teach English ... (S1)

'Found some useful vocabularies to teach the students ... found extra supplementary exercises for students to hone their skills in grammar ... (S3)

'Found reading passages via resources ... found some English songs to train their listening skills ...' (S2)

'Searched for exercises in library ... reinforced their skills before the school examination ... broke up the lesson into small parts for recapping and teaching (S4)

'Found good textbooks and exercises for the lessons' (S5)

'Used reference books to prepare the lessons' (S6)

In order to strengthen the secondary school students' learning ability in English, the tutors used an all-round method to teach English, including reading, writing, listening and speaking. They discovered that the secondary school students in general lacked confidence in speaking English, especially during self-introduction, self-reflection and opinion sharing. Two undergraduate students mentioned they assessed students' ability at the beginning so that they could teach the students according to their standards and needs.

'Taught students with reference to their weaknesses ... assessed students' ability at

the beginning to understand their needs ... tried to find ways to explain it directly and easily' (S2)

'Bought teaching materials for students ... prepared a mini test for assessing the students' level ...' (S3)

Some undergraduate students tried to inspire their students with their personal experiences and previous teaching experiences.

'Inspired students by using my personal experiences' (S3)

'Used previous teaching experience to prepare the lessons' (S6)

'Shared my own perception to stimulate students' interest in learning English' (S1)

Some undergraduate students were committed to their teaching even though they faced difficulties in dealing with students' differences in standards and levels. Moreover, some of them complained about insufficient teaching resources etc. They had to solve these problems by investing more time and effort in the preparation for the lessons.

'Difficulty in searching for resources that fit the students' level, I used more time in designing the question paper ... tried to find ways to explain it directly and easily ...' (S2)

'Difficulty in finding teaching resources at the beginning ... referring to other textbooks when I came across unfamiliar situations ... After I got the resources, the teaching became smooth and easy ...' (S3)

'Difficulty in following the teaching plan in real life ... It was necessary to be well-planned and prepared for alternatives ... The most difficult part was dealing with individual differences of students ... It was a common problem in teaching.... Adjustment of the teaching materials to suit the level of students Invited students with better skills to help other students' (S1)

'Faced the problem of individual differences amongst students... Taught from

simplicity to complexity to stimulate students' interest... Invited students with better skills to help other students ...' (S4)

Besides, the undergraduate students exerted effort to improve their teaching by performing reflections. Most of them did reflections after teaching. Some of them evaluated their teaching for improvement by seeking students' feedback after lessons.

'Did reflection in teaching ... did reflection on my suitability as a teacher' (S2)

'Evaluated my teaching via students' feedback ... did reflection in teaching ... found ways to improve' (S1)

'Seek students' feedback in every lesson for evaluation' (S4)

'Did reflection in teaching' (S3)

Furthermore, the undergraduate students wrote teaching reflections after each lesson and graded themselves in a scale of 1 to 10, with 10 being the best. They ranked themselves at an average of 7 in teaching performance in tutoring lessons. They were confused at the beginning due to the lack of experience in teaching, arranging in-class activities and leading students to response in lessons. In general, their scores went up from 6 to 8 after some time when they became more experienced in lesson handling and seeking students' feedback.

Sub-theme: Interpersonal skills

On top of gaining teaching skills, the undergraduate students also acquired other skills. Interpersonal skills are essential for the successful career of a student. As this teaching experience included opportunities to communicate with the secondary school students, they learnt new communication skills when interacting with their students. Being teachers, they learnt how to think from teachers' and students' perspectives. These were valuable interpersonal skills gained from teaching, via communication and building good relationships with their students.

'Learnt how to interact with students... learnt the skills in dealing with students with individual differences' (S5)

'Gained different perspectives as a teacher' (S1)

'Increased the confidence in interpersonal skills ...' (S3)

'Gained communication skills with students' (S2 and S4)

'Gained ways to help students to gain satisfactory development ... to see things from students' perspectives' (S2)

Some undergraduate students built good relationships with their students.

'Building up trust with students is important' (S3)

'Gained adaptability... built up trust with students' (S4)

'Achieved in building students' trust ... gained people skills' (S2)

One undergraduate student gained skills in time management. She stated that *'Gained time management skills'* after participation in the collaborative learning.

5.4.2.3 Theme 3: Positive attitude

Without positive attitudes, students found it difficult to learn proficiently. The undergraduate students were satisfied with the program and displayed positive learning attitudes after participation. The subthemes related to positive attitudes will be discussed next in more detail.

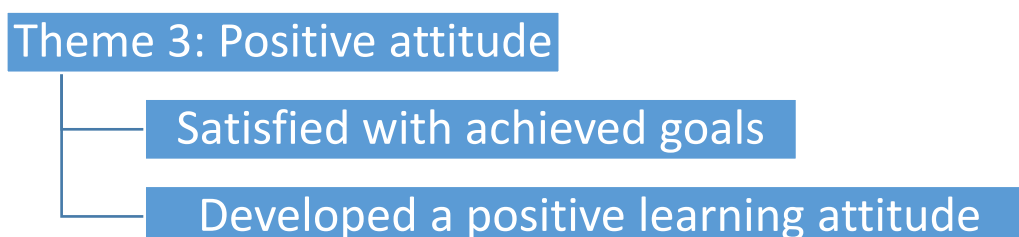


Figure 5.4 Theme three of the second cycle was 'positive attitude'. Students perceived gaining positive attitude through satisfaction with achieved goals and development of positive learning attitude.

Subtheme: Satisfied with achieved goals

The purpose of setting up mutual goals was to help the undergraduate students enhance their English skills, self-efficacy and engagement via collaborative learning over a period of time between 2013 and 2014. They were encouraged to submit at least three mutual learning goals in the workshops, to be submitted before their first tutoring lessons via the Google drive. To set up each goal, they were advised to develop a timeline for tracking strategies, learning activities, and resources for fulfilling, assessing and finishing the goals. In addition, the undergraduate students were advised to write down the measurements of their learning goals. Moreover, they were required to rate their confidence in goal achievement on a scale from 1 to 10, with 10 being the most confident. After the delivery of each tutoring lesson, they were required to rate again their teaching performance on a scale from 1 to 10, with 10 being the best.

The undergraduate students expressed their views about achieved goals in terms of different aspects of their English language skills. The majority believed that they had achieved their teaching and learning goals by an enhancement of their students' confidence in using English and an improvement in their English foundation as they needed to prepare and revise the teaching materials. Other students thought that they had achieved the goals because through teaching English they had improvements in reading, writing and speaking skills. .

'Through teaching English ... achieved goals' (S1)

'As regards oral and writing skills ... achieved goals' (S2)

"An enhancement of students' confidence in English ... through preparation and revision of the teaching materials, we could consolidate our English foundation ... achieved' (S3)

'An enhancement of students' confidence in using English ... improvement in oral ... achieved' (S4)

Through reviewing the mutual goals and reflecting on their teaching performance, the undergraduate students kept track of their teaching and learning goals in two main aspects: an improvement in English skills via teaching and an improvement in the secondary school students' learning attitude towards English. From their feedback they ranked themselves at an average of 7 in teaching performance and completion of goals. They commented that they could not complete all of the goals because of the time management problem in lessons. They were confused at the beginning because of lacking experience in teaching, arranging in-class activities and dealing with reserved students. In general, they gave higher scores (from 6 to 8) when they got more experienced in class handling and getting positive students' response. The program on the whole was a success. Hence they rated themselves high in teaching performance and achieving goals, which were related to the accomplishment of their personal learning goals on improvements in communication skills, teaching skills, goal attainments and English skills.

'I am satisfied with my teaching' (S3)

'Satisfied with the teaching performance' (S6)

One undergraduate student indicated that she was satisfied with her teaching because her students got significant enhancement in English skills. She was pleased because she had gained students' trust and her students treated her as their friend. Her students were willing to share their feelings with her.

'Gained students' trust ... students treated me as their friend and they were willing to share their feelings with me ... I am satisfied with my teaching ... students have got significant enhancement in their English skills' (S2)

One student was satisfied with her teaching because her students were very attentive in lessons, taking initiative to ask questions. And there was a good learning atmosphere in tutoring lessons.

'Satisfied with the teaching ... students were very attentive in lessons, took initiative to ask questions a good learning atmosphere' (S5)

Subtheme: Developed a positive learning attitude

The undergraduate students developed a positive learning attitude after participation in the program, which included 'enjoying their work' and 'getting positive impact from the job'. Also, they demonstrated 'effort and commitment' in teaching. One student was pleased with her teaching because her students had gained confidence in learning English.

'Am pleased because my students have gained confidence in learning English ... overall, I am satisfied with my teaching ... reflect that my students have gained confidence in using English'.

All undergraduate students thought this collaborative learning had positive impact. Two of them mentioned that this project was meaningful as it helped others. In addition, most of them thought that this teaching experience might help their future teaching career by enriching their teaching skills.

'Does enrich my teaching skills ... a lot of benefits' (S1)

'A big positive impact on me ... helpful to my career path' (S2)

'Gained teaching experience ... good for my teaching career in the future ... helpful to my career path' (S4)

'Positive impact' (S3)

'Positive impact on my career ... it is a good experience to contribute to the community, especially to help the disadvantaged groups' (S5)

'This project is meaningful to help the students with low proficiency in English ... positive impact on my career' (S6)

All undergraduate students had behavioral engagement showing great effort and commitment in teaching. They used a lot of time in preparing the teaching materials, designing appropriate question papers to suit their students' needs. Moreover, they put in a lot of effort in teaching. For example, they had great patience in getting answers from their students and used many different ways to explain the answers clearly for difficult questions. They also showed passion in teaching as they tried very hard to boost students' confidence in learning English.

'Used a lot of time to explain the answers allowed adequate time for students to find answers ... helped them overcome the fear in using English ... helped them boost their self-confidence through activities ... spent more time in designing question papers for students ... taught students with patience' (S2)

'Used a lot of effort to teach ... built up students' confidence in English ... revisited the teaching materials and found lively and vivid ways to present them to attract students ... thought of ways to arouse students' interest' (S3)

'Wanted to raise students' confidence in using English ...' (S4)

'The most difficult part was dealing with the individual differences of the students ... tried to adjust the level of the teaching materials ... invited brighter students to help other students ...' (S1)

From the above observations, the undergraduate students demonstrated great engagement in learning English through the 'usage of different strategies in teaching', 'demonstration of positive attitudes', 'expression of interest in English' and 'display of effort and commitment'. However, there were no significant differences in the increase of the mean scores of the MSLQ. Although there are no significant differences in the pre- and post-mean scores of MSLQ, it is nonetheless worthwhile to note that there is a noticeable increase in some sub-scales of the learning strategy scale when comparing the paired *t* test of pre- and post-scores of MSLQ.

5.4.2.4 Feedback from secondary school students and English instructor

The feedback from the secondary school students and the English instructor was important in reflecting the effectiveness of the performance process of the undergraduate students' teaching. In this second cycle of the research, the twenty-three secondary school students joining the English tutorial lessons were of 14 to 19 years of age with 52.2% male (n=12) and 47.8% female (n=11). As regards composition, there were one student from Secondary two, six students from Secondary three and Secondary four, and ten students from Secondary five. Their duration of schooling in Hong Kong is presented in Table 5.4 below.

Table 5.4: Duration of schooling of the secondary school students in Hong Kong (N=23)

Duration of Hong Kong Schooling	Number of students and percentage (No., %)
1 year	(2, 8.7)
2 years	(2, 8.7)
3 years	(4, 17.4)
More than 5 years	(15, 65.2)

All students (N=23) completed and returned the survey questionnaires and reported enhancement in various English skills. The majority of the secondary school students (86.9%, n=20) reported that they had improved their general English, reading and writing, and time management in examinations. Around half of them (52.2%, n=12) thought that they had improved their oral, listening and grammar; and some (17.4%, n=4) said that they had increased their English vocabularies. Most students (61%, n=14) expressed an increased interest in learning English whilst six maintained that they had no change in their interest and three left the question unanswered. Overall, most students (91%, n= 21) thought that they had enhancement of their English, while only one student regarded his English the same as before

and another one had no improvement in English.

For the overall satisfaction of the tutorial lessons, most students (44%, n=10) rated the overall satisfaction as 100%; some of them (26%, n=6) rated the overall satisfaction as 80%; five (22%, n=5) rated it as 60%; the remaining two (4%, n=2) rated it as 40% and 70% respectively.

When asked about their suggestions for improvement in the tutorial lessons, 22% of the students (n=5) responded that they had no suggestions. Most of them (44%, n=8) did not answer this question. Some students (17%, n=4) requested to increase the number of lessons and the other (17%, n=4) wanted an improvement in the classroom atmosphere and an enrichment in the content of their listening and answering skills. Most of the students (56%, n=13) reported that they would like to join these tutorial lessons again because they wanted to further improve their English. However, eight of them did not answer this question and one student was unwilling to join future tutorial lessons for the reason of being busy in their school study. Finally, there was also one student who preferred to have tutoring lessons in other subjects, e.g., Chinese.

5.4.3 Discussion

It has been well established that self-efficacy is positively related to academic performance (Bandura, 1995; Mills et al., 2006; Pajares, 2003; Mills et al., 2007; Rahimi & Abedini, 2009; Magogwe & Oliver, 2007; Motlagh, Amrai, Yazdani, Abderahim, & Souri, 2011). Moreover, self-efficacy is positively related to the enhancement of engagement in learning (Pintrich & De Groot, 1990; Bandura, 1997; Pintrich & Schunk, 1996; Walker et al., 2006; Ouweneel et al., 2013). It has been shown that students learnt more in collaborative learning than in individual learning (Johnson & Johnson, 2009; Johnson, 1989). During the process of collaborative learning, students are able to help one another and learn by observation. This peer modeling is helping students to gain self-efficacy (Bandura, 1995), which in turn enhances the engagement.

The main findings of this second cycle of the action research – three main themes and seven sub-themes, which explicated the experiences and perception of the undergraduate students from this collaborative learning, are elaborated in detail and integrated with literature in the following sections.

5.4.3.1 Goal setting of the collaborative learning

The effect of goal setting was explored through setting goals at the beginning of the collaborative learning, reviewing the undergraduates' progress by semi-structured interviews and reflecting on their teaching. The undergraduate students attributed the enhanced self-efficacy in learning English to the subtheme of 'satisfaction with achieved goals'. They had achieved their teaching goals through the preparation and revision of the teaching materials to boost the secondary students' confidence in English and to improve their English foundation. According to King's Goal Attainment Theory, "goal attainment represents outcomes" (King, 1999, p. 293). King postulated that health care professionals and client interaction are characterized by communication including verbal and nonverbal skills. This communication is

exchanged and shared with values, needs and knowledge. When health care professionals and clients set goals mutually, the actions, reactions, interactions and transactions will act towards goal attainment (King, 1999, p.294). In this collaborative learning, the undergraduate students set their goals with the English instructor mutually. They then worked towards the goals. When the teaching reflections were reviewed, the undergraduate students ranked themselves at an average score of 7 out of 10 in the teaching performance and completion of goals. This reflects that most undergraduate students attained the goals and were satisfied with the performance. Goal setting is important because goals guide people's actions. Many studies proved that people attained comparatively higher performance with specific goals than those who did not set goals or just set general goals (Locke, Shaw, Saari, & Latham, 1981; Locke, Frederick, & Bobko, 1984, Locke & Latham, 2006; Tanaka & Yamauchi, 2001). Moreover, setting learning goal where the doer has a say is important. Schunk's study also supported that students demonstrated greater self-regulated learning than those without setting goals. Moreover, students performed better when they set goals by themselves than those with assigned goals (Schunk & Hanson, 1985).

Most undergraduate students in the collaborative learning made good progress in their teaching and learning, and they raised the score for teaching improvement from 6 to 8 when they experienced improvement in teaching, e.g., in lesson handling and asking students for feedback. Most of them successfully fulfilled the goals previously set. The overall achievement allowed them to rate themselves higher in the teaching performance and confidence in achieving goals. Self-efficacy is one's judgment of being capable of succeeding at a task, and as such, is often conceptualized as antecedents to other motivational constructs, including goals (Bong & Clark, 1999). This self-evaluation of goal progress is important. According to Schunk and Rice (1991), a self-evaluation of the satisfactory progress of a goal enhances the feeling of efficacy. Following this, students will set more challenging goals. When people have agreed

on a goal, they may experience a sense of self-efficacy for achieving it (Bandura, 1988). When they need to pursue this goal, they are driven to engage in activities that they trust will help them achieve it. The findings of Locke et al., (1984) study showed that self-efficacy was related to goal commitment, and goal commitment to performance in the self-set goal condition but not in the assigned goal condition. Self-efficacy mediates the relationship of ability and strategy to goal choice. Bandura and his colleagues also recognized that goals play an important role in performance (Bandura & Cervone, 1983). Locke and Latham's study (2006) explained that a learning goal promotes students' metacognition. The metacognition includes planning, monitoring and evaluating progress toward goal attainment. Therefore, goal setting guides students to pursue the goal. Thus, goal setting helps to develop self-efficacy. The relationship between goal setting and self-efficacy is reciprocal. Increased self-efficacy improves the quality of the next goals (Artino, 2012).

Goal setting impacts on students' self-efficacy and therefore is considered as having an influence on the enhancement of the self-efficacy of the undergraduate students participating in the collaborative learning.

5.4.3.2 Collaborative learning on self-efficacy

A semi-structured interview and a pre-post instrument were conducted to explore the effect of the collaborative learning on enhancement of self-efficacy. After the completion of the collaborative learning, the undergraduate students felt that they had improved their English. As a result, their confidence in English was also enhanced. The undergraduate students attributed the 'gaining confidence in learning', 'different strategies for learning used' and 'improvement in English' in the main theme and sub-themes to the enhancement of their self-efficacy in learning English.

A majority of the undergraduate students grew more confident in English after joining this

collaborative learning. They had improvement in the different aspects of their English. The majority believed that they had improved in speaking and writing as they conducted the tutoring lessons in English. Most of them indicated that their English foundation became more solid because they needed to revise the basics by going through a lot of supplementary exercises and grammar books, and they had improved through the preparation of teaching materials. Moreover, they became more aware of their strengths and weaknesses in the language during the process of the preparation and the delivery of their teaching. One undergraduate student observed that she had to check for common errors in grammar to revise with the students and she could now avoid those common grammatical mistakes too. This finding was consistent with Padmaja's study in that collaborative language learning promotes learners' communicative interaction and fosters their development of critical thinking through discussions. Therefore, collaborative learning benefits students in a variety of ways in enhancing English language skills (Padmaja, 2014).

Students' judgments about their improved capabilities in English were important in showing self-efficacy enhancement. Self-efficacy plays a significant role in predicting human performance in many areas (Bandura, 1993). The current finding also agrees to the previous study that self-efficacy enhancement may be influenced by their own experiences. "Once behavior is learned, the regulation of the behavior relies on motivational process of reinforcement" (Ziegler, 2005, p. 36) and "Mastery experiences foster a feeling of confidence and an eventual feeling of self-efficacy" (Zullkosky, 2009, p. 96). Mastery experiences are most powerful in building self-efficacy (Bandura, 1997). In this study, when confidence was gained, students moved forward to the next activity. When students achieved repeated success in performing their tasks, self-efficacy rose.

Self-efficacy is hypothesized to influence the choice of activities, effort expended and persistence (Bandura, 1986). The students' effort and persistence in tasks or activities could

reflect their level of self-efficacy. When self-efficacious students face difficulties, they put greater effort, show persistence and have less doubt to solve the problems. Self-efficacy affects people's behavior directly or indirectly. Klassen and Usher (2010) believed self-efficacy, as a direct motivator, increases effort, persistence, and eventually, achievement. All undergraduate students showed effort in improving their English by using different strategies in learning. Some undergraduate students mentioned that selecting an appropriate level of YouTube videos, games, supplementary exercises and books to stimulate their students' learning interest did help to improve their own English skills. Through the preparation of teaching materials, they developed their learning strategies and improved their English too. Studies supported that students' use of effective learning strategies have a positive relation to self-efficacy (Pintrich & De Groot, 1990; Zimmerman & Martinez-Pons, 1990). Strategies are processes used by students to attain academic achievement. "Strategies are products of education interventions in which they are taught to students" (Schunk & Rice, 1991, p. 352). Evidence has shown that students with high self-efficacy choose to engage in tasks that help them develop knowledge, skills and abilities. Self-efficacy directly motivates academic behavior (Klassen & Usher, 2010).

All undergraduate students showed improvement through the preparation of teaching materials and delivery of tutorial lessons. This finding is consistent with the significant increase in the mean scores of 0.88 on the language self-efficacy scale. The result supports that the students had significantly increased their language self-efficacy scores. To sum up, the undergraduate students' self-efficacy was found to have been enhanced after participating in this collaborative learning.

5.4.3.3 Collaborative learning on students' engagement

A semi-structured interview and a pre-post instrument were conducted to explore the effect of the collaborative learning on learning engagement. The undergraduate students attributed the 'effort and commitment', 'different strategies for teaching used', 'raising interest', 'positive impact' and 'positive attitudes' in the main theme and the sub-themes to the enhancement of their engagement in learning English.

Consistent findings were reported in a large body of literature, e.g., Linnenbrink and Pintrich stated that behavioral engagement involves some observable behaviors. Students are said to be more engaged when they show more effort, persistence to tasks and help-seeking behavior. Students are engaged when they show positive behaviors such as lesson participation, attendance, task completion and effort (Fredricks et al., 2011; Miller et al., 1996). All undergraduate students showed behaviors in engagement by demonstrating effort and commitment in teaching. They used plenty of time in preparing the teaching materials, designing the appropriate question papers to suit their needs. They used a lot of effort in teaching.

Some researchers highlighted student engagement as characterized by a willingness to invest effort in one's work and be persistent even when encountering difficulties (Sanchez-Cardona et al., 2012). Nearly all undergraduate students finished their twenty tutoring lessons. Moreover, they showed patience in teaching and used different ways to explain the answers clearly and patiently to their students. In the process they had to face the problems of individual and level differences of the secondary school students as they came from different backgrounds and different forms. Moreover, some undergraduate students faced the problems in finding suitable teaching resources. They had to solve these problems by investing more time in preparing and finding alternative ways. This result showed that they showed behavioral engagement in this collaborative learning.

Fredricks and his colleagues stated that cognitive engagement is related to “psychological investment in learning” and “strategic learning” (Fredricks et al., 2004, p. 65). When students are cognitively engaged, they demonstrate the use of metacognitive strategies and quality effort in task. Moreover, students are cognitively engaged if they monitor and regulate their learning by reflecting on own thinking, actions and behavior (Linnenbrink & Pintrich, 2003). Findings of this current study demonstrated that the undergraduate students displayed behaviors of cognitive engagement. Besides, they showed initiative in improving their teaching by performing reflections after teaching. Most of them did the teaching reflections and wrote them down soon after each lesson. They evaluated their teaching by asking for student feedback after lessons and found ways to make improvements afterwards. Crucially, these behaviors demonstrated their cognitive engagement and use of metacognitive strategies.

Motivational engagement from Linnenbrink and Pintrich stated similar concepts on students’ interest, value and affect (Linnenbrink & Pintrich, 2003). Interest is a motivational variable and is defined as the “psychological state of engaging or the predisposition to re-engage with particular classes of objects, events, or ideas over time” (Hidi & Renninger, 2006, p. 112). The result of this study is consistent with the previous literatures. Nearly all of the undergraduate students showed increased interest in learning English with the exception of two students - one indicated that the collaborative learning had little impact on his interest in learning English and the other indicated that her interest in English was the same as before. The latter student explained that she always had a good interest in English and that was why her interest was unchanged. The affective component of interest is the “positive emotions accompanying engagement” (Hidi & Renninger, 2006, p. 112). Peoples feeling interested are more engaged in the activities. Ainley’s study (2002) suggested that interest is an important component in engagement (Ainley et al., 2002). The undergraduate students showed interest and passion in teaching as they tried to boost

their students' confidence in learning English and practiced their teaching using different strategies and performing reflections afterwards.

Eccles and his colleagues (1983) stated that task values have four major components and they are attainment value or importance, intrinsic or interest value, utility value or usefulness of the task and cost (Eccles & Wigfield, 2002). Attainment value refers to "the importance of doing well on the task" (Eccles et al., 1983, p.89). Intrinsic or interest value is related to the enjoyment of engaging in the task or activity. Utility value refers to "the importance of the task for some future goal" (Eccles et al., 1983, p.89). All undergraduate students thought they had positive gains from this collaborative learning. Some undergraduate students mentioned that this project was meaningful because they had helped others. In addition, most of them thought that this teaching experience might help their future teaching career by building up a good foundation in teaching. On top of their teaching, they also thought that they gained other skills such as time management and interpersonal skills. Most of them learnt how to interact with the students and improved their communication skills with different students. They learnt how to think from others' perspectives when they are teaching and communicating with the students. They improved their interpersonal skills via teaching through communicating and building good relationships with the students.

Emotions provide both fuel and guidance for students' behaviors. They act as markers of motivational resources for checking the quality of students' participation and coping, or whether students are at risk of burnout (Skinner et al., 2014). One student demonstrated markers of motivational resources when she said "*Felt happy because my students become confident in learning English I am satisfied with my teaching....reflected on building up students' confidence in English*". Some undergraduate students built good relationships with their students. One student was satisfied with the friendship he developed with his students. All these findings supported that the undergraduate students demonstrated behavior of motivational engagement in this collaborative learning.

The undergraduate students demonstrated increased engagement in learning English when they ‘used different strategies in teaching’, ‘demonstrated positive attitude’, ‘showed interest in English’ and ‘showed effort and commitment’. However, there are no significant differences in the increase in the mean scores of the MSLQ. Although there are no significant differences in the pre- and post-mean scores of MSLQ, it is nonetheless worthwhile to note that there are increases in some sub-scales of the learning strategy when comparing the paired *t*-test of pre- and post-scores of MSLQ in Table X. The most possible reason of statistically insignificance is the small sample size of only eight subjects in the calculation. Small sample sizes often do not yield statistical significance. Moreover, the differences in the MSQ scores were not large enough to demonstrate the significant differences.

The second cycle of this action research conducted an investigation in the collaborative learning to ascertain whether or not goal setting enhanced self-efficacy and engagement, and to explore whether students’ self-efficacy and engagement were enhanced after participation in this collaborative learning. Positive effects were found to support the hypotheses that collaborative learning had real impacts on students’ perceived enhancement on self-efficacy and engagement in learning.

5.4.4 Turning findings into action plans

Self-efficacy is found to be a strong predictor of academic achievement (Bandura, 1997). Moreover, self-efficacy is positively related to engagement. To help students better equipped with social skills and self-efficacy, collaborative learning seems to be a good method as it necessitates active exchange of ideas between students and leads to the building up of social skills that facilitate learning.

In the second cycle, it was hypothesized that the students involved in the collaborative

learning will develop more social skills and self-efficacy that would further improve their engagement in learning. King's Goal Attainment Theory was adopted and used to develop self-efficacy and engagement of the undergraduate students in learning English through setting mutual goals upon joining the collaborative learning.

The findings supported that most undergraduate students achieved their goals, perceived enhancement of self-efficacy and engagement in learning via participation in this collaborative learning. They attributed factors like 'gaining confidence in learning', 'using different strategies for learning' and 'improving their English' to the enhancement of their self-efficacy in learning English. Moreover, they demonstrated increased behavioral, cognitive and motivational engagement in learning English when they 'used different strategies in teaching', 'demonstrated positive attitude', 'showed interest in English' and 'showed effort and commitment'. Thus, goal setting in the collaborative learning helped the undergraduate students enhance their self-efficacy and improve their English.

The undergraduate students appreciated that they gained better communication skills via the process of teaching. Communication skills are one of the key components in social skills and this may in turn be reflected in the enhancement of the students' social skills. However, the data collection method in this cycle could not assess the social skills level. Therefore, I propose to explore social skills enhancement and assess social skills level directly in the next cycle. To assess the social skills level, Social Skills Inventory (SSI) will be used.

The first and the second cycles of the action research were about the collaborative learning held in a small group tutoring lesson setting. This setting was different from the usual conventional classroom setting as one usually finds in other action research projects. Moreover, the findings of the first and the second cycles supported that the students perceived English enhancement via this collaborative learning. It was proposed to explore and apply this collaborative learning in a conventional classroom setting with other subject matters as the

teaching content in the next cycle of the action research.

In the next cycle, the setting of a conventional classroom will be used to ascertain the difference between small group collaborative learning and conventional classroom collaborative learning.

The critical features and elements of collaborative learning are less precise than cooperative learning. Smith and MacGregor (1992) described the features and elements as follows: “In most collaborative learning situations, students are working in groups of two or more, mutually searching for understanding, solution, or meaning, or creating a product. There is wide variability in collaborative learning activities, but most center on students’ exploration or application of the course material, not simply the teacher’s presentation or explication of it. Everyone in the class is participating, working as partners or in small groups. Question, problems or the challenge to create something drive the group activity. Learning unfolds in the most public of ways” (Smith & MacGregor, 1992, p. 11). In the next cycle of this action research, a different learning area was used to assess the effect of the collaborative learning on the undergraduate students. Nutrition was chosen to be the subject of study in this third and last cycle of the collaborative learning. Diet in Health and Disease was a new elective course in the Bachelor of Health Education at the time and collaborative learning was used as a teaching approach to facilitate students to work together to co-construct knowledge. Students were required to design and co-construct a teaching video to teach their fellow classmates a topic chosen from the course.

A goal of collaborative learning is getting students to take responsibility of their work. The role of responsibility for learning is taken away from the teacher and given to the students, who will take active roles in their learning and build the knowledge together (Davidson & Major, 2014). Therefore, in this study a short briefing given to the students to cover ‘what collaborative learning is’, ‘the benefit of collaborative learning’ and ‘the roles and responsibilities of students

in collaborative learning' was organized for the students before their setting of the common goals of collaborative learning.

The strategies and techniques of collaborative learning were reviewed. Reid, Forrestal, and Cook (1989) suggested five phases in designing instruction for collaborative learning. These five phases including engagement, exploration, transformation, presentation and reflections were adopted in the next cycle of the action research. In the next cycle, the engagement phase would include some lectures related to basic nutrition, the dietary patterns of peoples and their impact on health. In the exploration phase, students had the opportunity to discuss and understand new information. During the transformation phase, students were asked to work with the information available on hand to understand it better. To monitor the students' learning and to address any misconceptions about the information uncovered in the collaborative learning process, a group meeting was scheduled for students to present the ideas for their story boards, collected information, tentative questions for checklist, etc. and to raise questions. In the presentation phase, the students were asked to upload their teaching videos and checklists, and present their teaching videos to the whole class. In the last phase, the students were asked to give comments on other groups' videos, conduct peer evaluation of the work of their group mates and write the reflective journal on the whole process of the collaborative learning.

The students were required to collect evidence-based nutrition information, design story boards, shoot videos, edit and upload their co-constructed teaching videos to the Web to share with their classmates. In addition, they were required to design a checklist for checking the knowledge of other classmates. Finally, they were required to conduct peer evaluation and give comments on other groups' teaching videos and conduct a peer evaluation of their own group mates. Finally, they were required to conduct a self-evaluation of their self-efficacy for learning, social skills and nutrition knowledge again and to write a reflective journal about the process of the collaborative learning.

Interdependence, positive interdependence or mutual interdependence, is a fundamental construct in collaborative learning (Davidson & Major, 2014). To foster positive interdependence, teachers usually use goal and task interdependence. The goals of the collaborative learning set include social and academic goals. To foster positive interdependence, the task will be a structured learning task or assignments that can be designed at varying levels of intellectual challenge. In the next cycle, the students were asked to set common social and academic goals after discussing with their group mates. Moreover, they needed to produce a co-constructed teaching video and develop checklists as their group tasks.

Further reviews were carried out on the way groups in collaborative learning are formed, to study the teaching of interpersonal skills, the structure of the groups and the role of the teacher. For group size, Davidson and Major (2014) suggested that collaborative learning groups can have two members but typically four to five.

To foster interdependence amongst students, Davidson and Major (2014) stated that collaborative learning should employ only goals and tasks and occasionally limited resources. Therefore, the students would be asked to produce teaching videos without being taught the detailed information on their topics. There would be no technical support in designing story boards, shooting, editing and uploading of the videos either. Cohen (1994) found that four to five students in a group is the ideal group size. If a group is larger than five, some students may be left out; and for a group with smaller than four, the discussion may not be enough to generate different perspectives of the viewpoints. Smith and MacGregor (1992) suggested the group size of two or more in collaborative learning situations. Gokhale's study (1995) about collaborative learning and critical thinking also selected the group size of four. Therefore, in the next cycle of the action research, the students would be in groups of four.

For group formation, collaborative learning never uses assigned groups and assigned group roles. Therefore, the students would be asked to form groups of four by themselves. In

collaborative learning, it is a usual practice that students are not taught group interaction skills or group reflection skills. Collaborative learning groups are usually self-managed. The instructor's roles tend to be less active in activities and tasks (Davidson & Major, 2014). In the next cycle, interaction skills would not be taught and only ground rules for collaboration would be introduced in the briefing to the students at the beginning of the cycle.

Many benefits were found in previous studies of collaborative learning. Webb found that collaborative learning developed student's higher order thinking skills (Webb, 1982). Johnson (1989) found that collaborative efforts helped students develop self-esteem. Another study claimed that those students working in pairs explaining answers between students developed their oral communication skills (Yager & Yager, 1985). Johnson, Johnson, and Holubec (1998) stated that collaborative learning was a team building activity. This activity helped students to foster their problem solving and team spirit. Psycharis (2008) and Gokhale's (1995) studies found that collaborative learning enhanced critical thinking and creative thinking of students. Another study supported that learners with a collaborative learning orientation tended to contribute more to the increasing group knowledge than learners with an individual learning orientation (Rosen & Rimor, 2009). Johnson et al.'s study (2014) showed that students improved in academic achievement, quality of interpersonal interactions, self-esteem and perception of greater social support. Because of the nature of collaboration, collaborative learning also helped in promoting students' social skills and self-esteem (Sultan & Hussain, 2012). Therefore, the benefits found in collaborative learning would be explained to the students during the briefing session to support the selection of this teaching approach for the subject.

To sum up, in the next cycle of the action research, it is hypothesized that the students

involved in the collaborative learning will develop better social skills, higher self-efficacy and more nutrition knowledge. The following are the research questions in the next cycle of the action research:

- i. Will collaborative learning increase students' self-efficacy in learning Diet in Health and Disease?
- ii. Will collaborative learning increase students' nutrition knowledge in learning Diet in Health and Disease?
- iii. Will the process of collaborative learning help develop students' social skills in learning Diet in Health and Disease?

Chapter 6: The Third cycle of the action research

This chapter describes the third cycle of the action research including stage one for clarifying vision and targets, stage two for articulating theory, stage three of implementing action and collecting data and stage four of reflecting on data, planning informed action into future research.

6.1 Stage 1: Clarifying Vision and Targets

6.1.1 Goals

The goals of this study were to evaluate the process and the effectiveness of collaborative learning on undergraduate students' self-efficacy, social skills and nutrition knowledge in learning Diet in Health and Disease.

6.1.2 Targets

The target group being studied was the forty-nine undergraduate students who were taking the elective course 'Diet in Health and Disease' offered by FLASS of EdUHK.

6.2 Stage 2: Articulating Theory

6.2.1 Focus of this Stage

The focus of this stage was to ascertain the effect of the collaborative learning on a learning area different from the previous two cycles. Therefore, the focus was to evaluate the effect of the collaborative learning on undergraduate students in learning nutrition.

The participating undergraduate students were required to collaborate with a number of parties. Through a collaborative process, their own learning was assessed with respect to their

self-efficacy, social skills and nutrition knowledge in learning Diet in Health and Disease.

6.2.2 Conceptual Framework

With reference to the experience gained from the conceptual framework used in Cycle Two, it is expected that by adopting King's Goal Attainment Theory in this collaborative learning it might enhance the students' learning. Once students recognized that their skills were improving and they were making progress towards their goals, they would experience high self-efficacy, which should spur them on to attain their goals.

According to Social Cognitive Theory, self-efficacy is important in learning. Self-efficacy is found to be a strong predictor of academic achievement (Bandura, 1997). Moreover, self-efficacy is positively related to engagement. Self-efficacy affects academic success and performance. Low self-efficacy will lead to low engagement in learning too. Self-efficacy can lead to better engagement and subsequently to more active learning and better achievement (Linnenrink & Pintrich, 2003). The learning and achievement will revert back to build higher self-efficacy when students can learn better and achieve more.

Teaching and learning activities at school are predominately done through face-to-face communication and peer interactions. Good social skills are therefore important in learning. We learn by exchanging ideas with others and working collaboratively. If students have good social skills, they can participate productively in classroom activities that help foster learning. To help them better equipped with social skills and self-efficacy, collaborative learning seems to be a good method as it necessitates active exchange of ideas between students and leads to the building up of social skills that facilitate learning. The same conceptual framework in Cycle Two was adopted in Cycle Three of the action research as shown in Figure 4.6 on p. 114.

6.2.3 Research Questions

- i. Will collaborative learning increase undergraduate students' self-efficacy in learning Diet in Health and Disease?
- ii. Will collaborative learning increase undergraduate students' nutrition knowledge in learning Diet in Health and Disease?
- iii. Will the process of collaborative learning improve undergraduate students' social skills in learning Diet in Health and Disease?

6.2.4 Hypotheses

The following hypotheses were formulated:

H_A: The collaborative learning improves the undergraduate students' self-efficacy in learning Diet in Health and Disease.

H_B: The collaborative learning improves the undergraduate students' social skills in learning Diet in Health and Disease.

H_C: The collaborative learning increases the undergraduate students' nutrition knowledge in learning Diet in Health and Disease.

6.3 Stage 3: Implementing Action and Collecting Data

Diet in Health and Disease is a new elective course for the Bachelor of Health Education. This course was first introduced in September 2015 and aims to examine the dietary patterns of people and their impact on health. Collaborative learning is used as a teaching approach to facilitate students to work together to co-construct knowledge. The course outline of HCS3053 Diet in Health and Disease can be found in Appendix H and the details of the components of the assessment tasks can be found in Table 6.1 on the next page.

Table 6.1: Components of the Assessment Tasks

Components	Assessment tasks	Weightings (%)
Development of teaching video	A teaching video	50
Self-evaluation and peer evaluation	(I) Peer evaluation: comments on group assignment from peers (II) Self-evaluation on self-efficacy for learning, social skills and nutrition knowledge	10
Reflective journal	A reflective journal: reflection of the process and level of learning	40

6.3.1 Subject and Recruitment Procedures

In this cycle, classroom artifacts of Diet in Health and Disease were used in this study. As the researcher was the course lecturer and to lower the high power distance between the students and the course lecturer, classroom artifacts of the course “Diet in Health and Disease” were collected. The classroom artifacts were the learning goals, questionnaires for self-evaluation for learning, social skills and nutrition knowledge and reflective journals of the collaborative learning.

6.3.2 Collaborative Learning

In this cycle, collaborative learning was implemented in a conventional classroom. Students were asked to discuss mutual goals, to set them and to share responsibilities to accomplish the common goals. Nutrition was chosen to be the subject of study in this last cycle of collaborative learning. Diet in Health and Disease is a new elective course for the Bachelor of Health Education and collaborative learning was used as a teaching approach for students to work together to co-construct knowledge. Students were required to design together and co-construct a teaching video to teach their classmates.

The goal of collaborative learning is getting students to take responsibility of their learning. A short briefing was given to the students about ‘what is collaborative learning’, ‘the benefit of collaborative learning’ and ‘the roles and responsibilities of students in collaborative learning’ before the students set the common goals of their collaborative learning. Reid et al. (1989) strategies and techniques for collaborative learning were adopted in this cycle. The five phases suggested by Reid et al. are engagement, exploration, transformation, presentation and reflections. The engagement phase was the students’ attendance of some lectures that covered basic nutrition, the dietary patterns of people and their impact on health. As for the exploration stage, the students had ample opportunities to discuss and understand the new information with fellow group mates. In the transformation stage, the students were asked to work with the information to understand it better. To monitor the students’ learning and address any misconceptions about their collected information in the collaborative learning project, a group meeting was organized for the students to present the drafts of their story boards, the collected information and the tentative questions for the checklist. There was also a short questioning time at the end of each presentation. During the presentation stage, the students had to upload their teaching videos, checklists and then they were asked to present their teaching videos to the whole class. In the last stage, the students were asked to give comments on other groups’ videos, complete the peer evaluation of their group mates and write the reflective journals about the process of the collaborative learning.

About the goals and tasks, the students were asked to set the common social and academic goals after discussion with their group mates. And ground rules for collaboration were introduced to the students during the briefing. A co-constructed teaching video and a checklist were given as group tasks for each group. They were required to collect evidence-based nutrition information, design story boards, shoot videos, and edit and upload their co-constructed teaching videos to share with their classmates. In addition, the students were

required to design checklists for assessing the knowledge increase of their classmates afterwards. At the end of the program, they had to conduct peer evaluations and give comments on other groups' teaching videos and conduct a peer evaluation of their own group mates as well. Finally, they were required to conduct self-evaluations of self-efficacy for learning, social skills and nutrition knowledge again and to write reflective journals about the process of the collaborative learning.

6.3.3 Ethical Considerations

Approval of the study had been obtained from the Ethics Committee of EdUHK. Confidentiality and anonymity of the collected information were assured. Classroom artifacts from this study would only be used for research purposes, and all raw data would be destroyed after the study was completed.

6.3.4 Data Collection

In this study, multiple sources of classroom artifacts were selected. All these classroom artifacts, including self- and peer evaluation of learning and reflective journals, were used to elicit information that helped determine the effectiveness of students' performance in learning Diet in Health and Disease (Jay & Johnson, 2002). Classroom artifacts about students' self-evaluations of their learning included the eight items of self-efficacy for learning from the Motivated Strategies for Learning Questionnaire, the Social Skills Inventory and the Revised General Nutrition Knowledge Questionnaire. The process of collaborative learning was evaluated by reviewing students' reflective journals.

Self-evaluations covering self-efficacy in learning, social skills and nutrition knowledge were measured before and after the collaborative learning intervention. Self-efficacy will be measured by the self-efficacy components from the Motivated Strategies for Learning

Questionnaire (MSLQ) whereas the social skills will be measured by the Social Skills Inventory (SSI). Nutrition knowledge will be assessed by the Revised General Nutrition Knowledge Questionnaire (GNKQ-R).

6.3.5 Instruments for Self-evaluation

6.3.5.1 Self-Efficacy in Learning and Performance

The eight items covering self-efficacy in learning and performance from the Motivated Strategies for Learning Questionnaire were used to assess the students' self-efficacy in Diet in Health and Disease. The Motivated Strategies for Learning Questionnaire is a self-reporting instrument to measure students' motivation in learning. Overall, the Cronbach's alphas are robust, ranging from 0.52 to 0.93 (Pintrich et al., 1991).

6.3.5.2 Social Skills Inventory (SSI)

The instrument used for measuring social skills was Riggio's (1986) Social Skills Inventory (SSI). The SSI is a 90-item self-reported Likert-scale inventory that measures basic social skills. It was created as a self-reported scale or assessment tool to understand and report the multiple dimensions of social skills. Riggio's SSI was developed with reference to the previous works of Profile of Nonverbal Sensitivity Scale (Rosenthal, Hall, DiMatteo, Rogers, & Archer, 1979), Communication of Affect Receiving Ability Test (Buck, 1976, 1988), Affective Communication Test (Friedman, Prince, Riggio, & DiMatteo, 1980), and Self-Monitoring Scale (Snyder, 1974). The original SSI in 1986 consisted of seven dimensions with two domains (emotional and social) and had 105 items. This self-reported questionnaire assessed three basic areas, namely, expressivity, sensitivity, and control (Riggio, 1986). The modern SSI has 90 items. The modern one measures the three previous basic area skills plus six subscales of social skills. The six subscales are: Emotional Expressivity, Emotional

Sensitivity, Emotional Control, Social Expressivity, Social Sensitivity, and Social Control.

The emotional domain is nonverbal in nature. It refers to people's feeling of emotion states and cues (Riggio, 1989). The emotional domain denotes people's attitudes and dominance. Social domain is verbal in nature. It refers to people's cues of engagement and initiative in conversation. Riggio's (1986) emotional expressivity subscale measures people's ability to communicate nonverbally. It measures how people express attitudes, dominance and interpersonal orientation in nonverbal manner. Emotional sensitivity measures how people understand, receive, interpret the nonverbal communication between one another. Emotional Control measures how well people regulate their own emotions and convey their emotional cues. Emotional intelligence is the domain that includes emotional expressivity, emotional sensitivity and emotional control.

People's expressions in words and ability to engage others in social discourse are measured by social expressivity (Riggio, 1986, 1989). Social sensitivity measures people's sensitivity to understand social norms and behaviors. Moreover, social sensitivity assesses people's ability to interpret the verbal communication of others (Riggio, 1989; Riggio & Carney, 2003). People's skills in presentation of self and skills in role-playing are assessed by social control (Riggio, 1989). The subscales including social expressivity, social sensitivity and social control jointly assess the domain of social intelligence.

The modern SSI uses a Likert scale with the subscales ranging from "not at all true of me" to "very true of me" (Riggio, 1986, 1989). The reliability of SSI shows that each scale of the SSI appears adequate for internal consistency (Riggio, 1989). The test-retest reliability ranged from .81 to .96 for the individual scales, with the reliability of the total SSI being .94 (Riggio, 1989). These coefficient scores are strong and demonstrate high internal consistency; and, they compare favorably to other social skills instruments (Riggio, 1986, 1989). However, social sensitivity and emotional expressivity have no meaningful relationship, and there is only a

weak relationship between the subscales; the others (i.e., emotional sensitivity, emotional control, social sensitivity, and social control) demonstrate positive correlations. Nevertheless, the SSI scores are high enough to be considered as a reliable and stable instrument.

6.3.5.3 Revised General Nutrition Knowledge Questionnaire

The Revised General Nutrition Knowledge Questionnaire (GNKQ-R) (Kliemann, Wardle, Johnson, & Croker, 2016) was used to test the basic nutrition knowledge. Before providing any instructions for collaborative learning activities, the students were asked to complete the GNKQ-R. The nutrition knowledge was assessed again after they finished the whole course by using the GNKQ-R.

The Nutrition Knowledge Questionnaire was developed by Parmenter and Wardle (1999) in 1999. The questionnaire had four sections covering the expert's recommendations regarding increasing and decreasing intake of different food groups, nutrient knowledge, food choice and the relationships between diet and disease. The last section focused on the beliefs about the foods that could cause particular diseases as well as knowledge of any diseases associated with eating too much or too little of various types of foods. Following a review of the prevailing recommendations of food and nutrition, a revised version of the GNKQ (i.e., GNKQ-R) was created by Kliemann and his colleagues in 2016. The revised questionnaire keeps the previous four sections but consists of 88 items. Reliability and validity of the GNKQ-R were determined in four validation studies:

- 1) reliability was examined using an online sample (n=266),
- 2) construct validity was assessed with 96 Dietetics students and 89 English students using the “known groups” method,
- 3) associations between nutrition knowledge and socio-demographic characteristics were examined using the previously described samples,

4) sensitivity to change was tested by measuring GNKQ-R scores pre- and post-exposure to online nutrition information in written (n=65) and video (n=41) formats. The reliability was greater than 0.7 in all sections. Dietetics students scored significantly higher than English students. As predicted, GNKQ-R scores were significantly higher among females vs. males, people with a degree vs. those without, and people with very good vs. poor or good health status. They were lower in those older than 50 years vs. younger adults. GNKQ-R scores were significantly higher after the nutrition interventions in both written and video formats. The scoring system still remains the same as the previous one. Each item carries one point for a correct answer. The total score in each section is changed to 18, 36, 13 and 21 points respectively and the maximum total score is 88.

6.3.5.4 Students' Peer Evaluation

Peer evaluation is used to help students to reflect on another student's work and in turn reflect on their own experience (Jay & Johnson, 2002). Students were required to comment on the teaching videos of other groups. The peer evaluation forms and the comments from the students were selected to evaluate the learning process of the students.

All of the above classroom artifacts were used to evaluate the students' performance and their learning process and the details can be found in Appendix I to K.

6.3.5.5 Reflective Journal

Reflective learning is a way of allowing students to review their learning experience and helping them to develop critical thinking skills by analyzing their experience. Writing a reflective journal is effective in moving student from surface to deep learning (The Center for Teaching and Learning, 1997). Reflective journal was selected to review the students' learning process in collaborative learning and assess the depth of their learning in this research.

6.3.6 Data Analysis Plan

Paired *t*-test, Wilcoxon signed-ranks test and ANOVA were used to test the pre- and post-self-evaluation. The significance was set at 0.05 level. Thematic analysis was used to assess the process of collaborative learning and the learning from reflective journals.

6.4 Stage 4: Reflecting on Data, Planning Informed Action

Diet in Health and Disease is a new elective course in the Bachelor of Health Education. This course was first introduced in September 2015 (the first semester of 2015/2016) and aims to examine the dietary patterns of people and their impact on health. Collaborative learning is used as a teaching approach for the students participating in this research to work together to co-construct knowledge.

Students were required to work in groups of 3 to 4. To examine the dietary patterns of people and their impact on health, students were given twelve topics related to nutrition for their selection. If more than one group chose the same topic, the winning group of the topic would be decided by a draw. After that, the students in a group were required to co-construct a teaching video to teach their classmates on the topic. They were required to collect evidence-based nutrition information, design the story board, shoot the video, edit and upload their co-constructed teaching video to share with their classmates. In addition, they had to design a checklist for helping other classmates to assess their knowledge. At the end of the program, they needed to conduct a peer evaluation and give comments on other groups' teaching videos and also conduct a peer evaluation of their group mates. Finally, they had to perform a self-evaluation of self-efficacy for learning, social skills and nutrition knowledge again and to write reflective journals about the process of the collaborative learning.

6.4.1 Sample Characteristics

The sample had a response rate of 100% (N= 49), comprising 42.9 % men and 57.1% women. All respondents were Chinese. Their highest levels of education attained were Diploma/Higher diploma and Associate degree at 66.7% and 33.3 % respectively. Out of the total respondents, 13.9% possessed Diploma or Higher diploma in the nutrition area. The demographic characteristics of the sample are shown in Table 6.2 below.

Table 6.2: Demographic Characteristics of the Sample (N= 49)

Demographic characteristics		Number of students and percentage (No., %)
Gender	Male	21, 42.9
	Female	28, 57.1
Ethnicity	Chinese	49, 100
* Marital status	Single	32, 88.9
	Married	4, 11.1
* Children living at home?	Yes	0, 0
	No	36, 100
* Education level	Diploma / Higher Diploma	24, 66.7
	Associate degree	12, 33.3
* With nutrition qualification	Yes	5, 13.9
	No	31, 86.1

* With missing data

6.4.2 Results

In Cycle Three, a collaborative learning was implemented to help improve the undergraduate students' self-efficacy, social skills and nutrition knowledge in learning Diet in Health and Disease. The first research question was about whether collaborative learning had increased students' self-efficacy in learning Diet in Health and Disease. The second and third research questions were about whether the process of the collaborative learning had increased students' social skills and nutrition knowledge in learning Diet in Health and Disease respectively. The undergraduate students were asked to set their goals after the instructor's briefing on the collaborative learning and the course outline of Diet in Health and Disease. The undergraduate students' perception over their enhancement of self-efficacy, social skills and nutrition knowledge in learning Diet in Health and Disease after completion of this collaborative learning were investigated. Classroom artifacts were used in this study to support the findings and they included the students' self-evaluation of their learning using the Motivated Strategies for Learning Questionnaire, the Social Skills Inventory and the General Nutrition Knowledge Questionnaire and their reflective journals. An outline of the themes and the sub-themes of the students' collaborative learning is shown in Figure 6.1. Findings are presented in quotes from the undergraduate students' reflective journals to illustrate the themes and the related sub-themes.

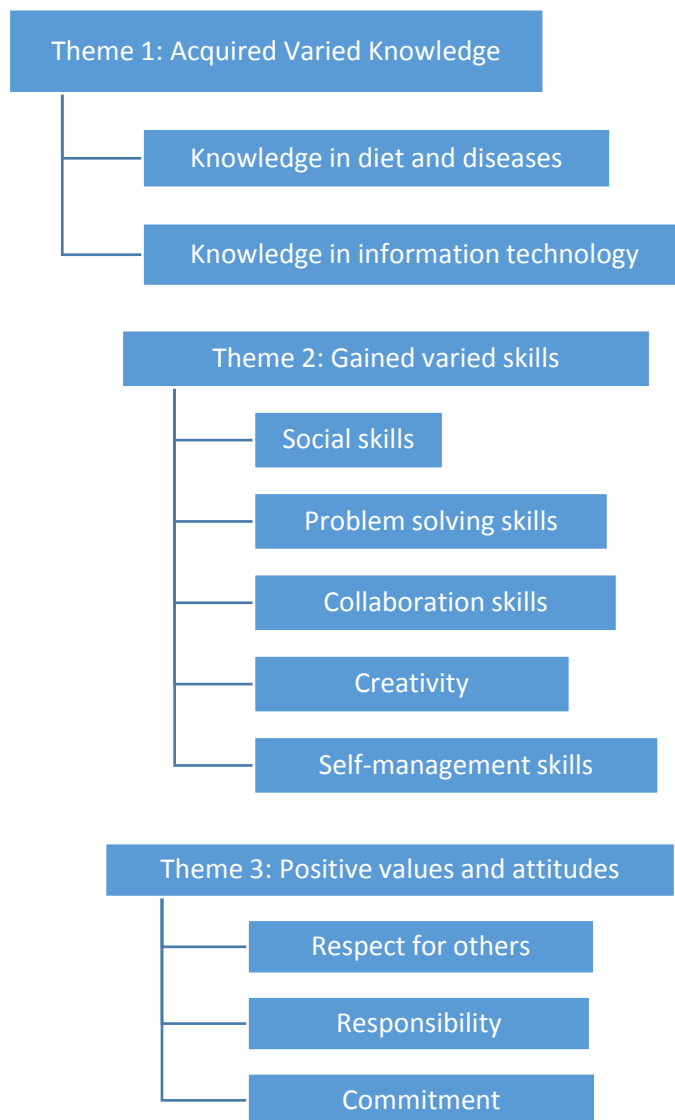


Figure 6.1 Themes and sub-themes in the third cycle of the action research.

6.4.2.1 Theme 1: Acquired Varied Knowledge

This collaborative learning aimed to help improve undergraduate students' self-efficacy, social skills and nutrition knowledge in learning Diet in Health and Disease. The sub-themes are related to acquired varied knowledge and are discussed in detail here.

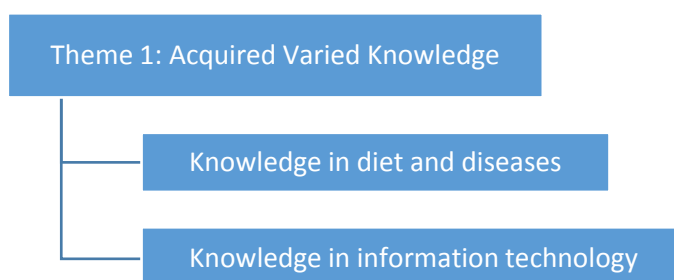


Figure 6.2 This figure shows Theme One of the third cycle of the action research. Students perceived acquired varied knowledge including knowledge in diet and disease and information technology.

Sub-theme: Knowledge in Diet and Diseases

Most undergraduate students perceived that they gained knowledge in Diet and Diseases. The following are excerpts from some students' reflective journals that support these views:

"We have a better understanding of nutrition. We also have acquired some basic knowledge of different kinds of health problems after listening to other groups' presentations — for example, high blood pressure, overweight, constipation, and especially for our topic of gout. And we know how to manage food intake to prevent those diseases" (S15)

"I learned the knowledge of the 12 topics which include Overweight, Cancer Prevention, Diabetes Mellitus and so on" (S2)

Some of them thought that they had the ability to give advice to their friends and family. Thus, knowledge in diet and diseases could be applied in daily life as highlighted in the following quotes:

“I use some diet planning skills of marathon competition whenever I participate in any marathon competition. For example: I can cook a decent nutritious meal for myself or meals for other marathon athletes before the competition. These can reduce the risk of injuries and help runners improve their performance” (S49)

“High fat food is the main culprit of high blood cholesterol. I think it is better for me to eat less McDonald’s. Also, some colleagues may ask me what the meaning of high blood cholesterol index is. Since they know that I am studying health education, they may seek advice from me about health. After the project, now I am confident to answer those questions.” (S1)

“I am able to tell my relatives more about the nutritional information in my daily life whenever the related questions arise in our family gatherings. Furthermore, I occasionally can apply the nutritive recipes I learned from the Internet in my daily life” (S12)

“I know how to cook healthily in a delicious way by using more pot steaming instead of pan frying at home. For example, in the past I usually cooked pan fried fish for my family, but because of this project, I found out that pot steaming can also provide a healthy and tasty dish. Lastly, I am more vigilant of my calories intake in my daily life to avoid becoming overweight in future” (S27)

“Alert me to the importance of a healthy diet for my family. I start to care about what they eat all day, especially my father who had high cholesterol index. And I can give him some dietary advice after studying this course.” (S39)

Students found that some myths were cleared after searching for new information.

“Apart from the DASH diet, I also knew much more about high blood pressure disease. In the past, I misunderstood that everyone had the same possibility to contract the disease. I was totally shocked when I was told by a group mate that the chance of contracting this disease across races was not equal like, for example, Blacks were easier to get high blood pressure than Whites” (S38)

“Before doing this project, I had misunderstanding on gout as shown in the first part of the video. I thought gout is the same as rheumatism. Gout patients will feel pain during windy and rainy days, especially for the high risk elderly patients. After the project, we fully understand gout” (S15)

The checklist helped the students to test their knowledge in the understanding of the twelve assigned topics and to summarize the main points of each topic. Some of the students' views were:

“I knew that there were some main points of each topic in the checklist. Therefore, when I did the checklist after watching the video, I could know the important things of each topic” (S3)

“The most important thing is that I gained a lot of new knowledge from the videos because all health problems are related to our life. In addition, I needed to finish the questionnaire on the Internet from each group after watching the videos. It is very important to commit the new knowledge to our memory” (S44)

The findings of perception from undergraduate students are consistent with the revised General Nutrition Knowledge Questionnaire (GNKQ-R) scores. The mean increase in GNKQ-R scores was 12.4, 95% CI = -16.02 to -8.71. The students had a significant increase in their

GNKQ-R scores ($t = -6.86$, $df = 35$, $p = 0.00$) and the increase was large (Cohen's $d = 1.14$) (Cohen, 1992). The change in mean GNKQ-R scores is used as a measure of the students' improvement in nutrition knowledge after the collaborative learning of "Diet in Health and Disease". The students had a significant increase in their nutrition knowledge after the collaborative learning. A response rate of 73.5% ($N=36$) was achieved, with the sample comprising 42.9 % men and 57.1% women. The mean GNKQ-R scores for all sections and the whole questionnaire in the pre-test are presented in Table 6.3 below.

Table 6.3: Mean GNKQ-R Scores for all Sections and the Whole Questionnaire in the Pre-test

GNKQ-R scores (Maximum points)	Mean	N	Std. Deviation (SD)
Section one (Max. 18)	11.17	36	2.51
Section two (Max. 36)	23.31	36	4.71
Section three (Max. 13)	8.08	36	2.43
Section four (Max. 21)	14.25	36	3.48
Total scores (Max. 88)	57.36	36	11.47

In the first section, out of a maximum of 18 points, the mean score was 11.17 (SD 2.51). More than 80% of the respondents were aware of the recommendations of limiting fat, sugar and salt intake and increasing fruits and vegetables intake. It indicated that these basic health messages were successfully conveyed. However, half of the respondents (56%) were not aware of the recommendations to reduce processed red meat and 48% were unaware of the recommendations to eat more wholegrains. Between 30 and 40% of the respondents were confused about unsaturated fats, saturated fats and trans fats. Some of them were not sure or wrongly answered that they needed to consume less unsaturated or not to eat less saturated fats. Seventy-five percent did not know that the recommended daily intake of fruit and vegetables was as many as five servings. Most of them believed that experts were advising people to eat a minimum of one to three servings of fruit and vegetable daily. Almost 86% of the respondents

were not able to identify two glasses of fruit juice is equivalent to one serving of fruit and vegetable. Half of the respondents (50%) were not aware of the advice of choosing reduced fat dairy foods.

In the second section, out of a possible maximum of 36 points, the mean score was 23.31 (SD 4.71). When asked to classify various foods as either high or low in added sugar, salt, fibre, protein or starchy foods, 61% of the respondents did not know that diet cola drinks are typically low in added sugar. More than 72% and 69% of respondents did not know breakfast cereals and bread are typically high in salt respectively. Half of the respondents (50%) were not able to answer that red meat is low in salt. The section on fibre was generally answered well. The respondents were confused about different types of fats. Almost 75% of the respondents failed to identify the main type of fat present in olive oil and sunflower oil. Over half of the respondents (59%) did not know the main type of fat present in butter is saturated fat. They misunderstood that the main type of fat present in butter is cholesterol. Most of the respondents (83%) knew that biscuits, cakes and pastries have the most trans-fat. Knowledge about the amount of calcium in a glass of whole milk compared to a glass of skimmed milk was poor because only 55% of them knew that calcium in whole milk is about the same as skimmed milk. In general, they were good in knowing the food types that contain most calories.

In Section Three, out of a maximum of 13 points, the mean score was 8.01 (SD 2.43). Most mistakes were made on the question which asked people to pick thick-cut, thin-cut or crinkle-cut chips. Almost 81% of the respondents did not know that thick-cut chips are 'healthier' than thin- or crinkle-cut chips. Nearly half of the respondents (58%) failed to know that sauteing is one of the cooking methods that requires fat to be added. They were generally better at identifying the lowest fat soup, healthiest and most balanced main meal and sandwich lunch in a restaurant or cafe. However, only 58% of the respondents knew that broccoli, carrot and tomatoes have the greatest variety of vitamins and antioxidants of the food choices in this pre-test.

The last section is about the health problems or diseases related to diet and weight management. The mean score was 14.25 (SD 3.48) out of 21 points. A high proportion of the respondents was aware of the relationship between eating less refined foods and animal fat with the prevention of diabetes and heart disease respectively. Most of them answered correctly that they disagreed with the argument that maintaining a healthy weight can be achieved by cutting fat out completely. As regards taking nutritional supplements, half of the respondents wrongly believed that taking nutritional supplements and grazing throughout the day can help people to maintain healthy weights. Slightly more than half of the respondents (53%) did not know white bread is classified as having a high Glycaemic Index. Finally, 72% of the respondents failed to know the link between eating less red meat and reducing the chances of getting cancer.

Overall, the difference of mean percentage score of pre-GNKQ-R total scores between female and male was 9.61. Women scored slightly and significantly ($p<0.05$) higher than men on the knowledge questionnaire as a whole in the pre-GNKQ-R scores.

The mean GNKQ-R scores for all sections and the whole questionnaire in the post-test are presented in Table 6.4 below.

Table 6.4: Mean GNKQ-R Scores for all Sections and the Whole Questionnaire in the Post-test.

GNKQ-R scores (Maximum points)	Mean	N	Std. Deviation (SD)
Section one (Max. 18)	14.28	36	2.06
Section two (Max. 36)	28.28	36	4.16
Section three (Max. 13)	9.86	36	1.94
Section four (Max. 21)	17.25	36	2.11
Total scores (Max. 88)	69.72	36	7.04

In the first section of the post-test, out of a maximum of 18 points, the mean score was 14.28 (SD 2.06). Great improvement in the knowledge of the recommendations to reduce processed red meat and eat more wholegrains was identified; nearly 92% and 72% of the respondents answered the two respective questions correctly. Less than 15% of the respondents were still confused about saturated fats and trans fats in the post-test. Moreover, nearly 89% picked the correct answer for the question concerning unsaturated fats. Fifty percent of the respondents were confused that experts are advising people to eat a minimum of one to three servings of fruit and vegetable to be adequate. Significant improvement (70%) in knowing the conversion of the serving size of fruit juice to fruit and vegetable was identified. Most of the respondents (83%) were able to pick the experts' advice to drink reduced fat dairy foods.

In the second section of the post-test, of a possible maximum of 36 points, the mean score was 28.28 (SD 4.15). When asked to classify various foods as either high or low in added sugar, salt, fibre, protein or starchy foods, only a slight increase of 2.8% of the respondents gave the correct answer for this question. Again, only a slight increase of 4% of the respondents gave the correct answer in identifying breakfast cereals as typically high in salt but a larger proportion (47%) of the respondents knew that bread is typically high in salt in the post-test. Half of the respondents (50%) were not able to point out that red meat is low in salt and the percentage had remained the same in the post-test. The respondents were confused about different types of fats and failed to answer the main type of fat present in olive oil and sunflower oil, around half of the respondents were able to identify the correct answers. Over half of the respondents (59%) did not know the main type of fat present in butter is saturated fat previously and in the post-test, almost 69% of the respondents were able to answer correctly.

As regards the nutrition knowledge of food ingredient classification, of a maximum of 36 points, the mean scores were 23.31 (SD 4.71) and 28.28 (SD 4.15) in the pre- and post-tests respectively. The highest percentage of the respondents (92%) was able to give the correct answer

to the calcium content comparison in the whole and skimmed milk.

In Section Three, out of a maximum of 13 points, the mean score was 9.86 (SD 1.94). A slightly higher percentage (44%) of the respondents knew that thick-cut chips are ‘healthier’ than thin- or crinkle-cut chips in the post-test. There was a great improvement in the knowledge that fat needs to be added in sauteing as 75% of the respondents picked the right answer. Almost 92% of the respondents answered correctly that broccoli, carrot and tomatoes have the greatest variety of vitamins and antioxidants for the choices.

In the last section, the mean score was 17.31 (SD 2.11) out of a maximum of 21 points. About 72% and 86% of the respondents answered correctly that taking nutritional supplements and grazing throughout the day cannot help people to maintain a healthy weight. Eighty-one percent of the respondents knew that white bread has a high Glycaemic Index. However, only a slight increase to 44% of the respondents were able to identify the benefit of eating less red meat in reducing the chances of getting cancer.

Overall, the difference of mean percentage scores of the post-GNKQ-R total scores between female and male was only 1.97. Generally, women scored slightly and insignificantly ($p>0.05$) higher than men in the knowledge questionnaire as a whole in the post-GNKQ-R scores.

Sub-theme: Knowledge in Information Technology

The students were required to co-construct teaching videos to teach their classmates. They had to design story boards, shoot videos, edit and upload their co-constructed teaching videos to share with their classmates. Most of the students did not have previous experience in making and editing videos. Going through this process, the students stated that they had acquired knowledge in information technology during shooting, editing and uploading of the videos. The following excerpts from some of the students’ reflective journals that support these views:

“I did not know how to make a video because I seldom made videos before. Therefore,

I have learned many new technology skills about video making. For example, adding different sounds and effects into videos; editing out mistakes and adjusting the quality of the videos.” (S19)

“I just started to learn computer skills especially video clipping. It is difficult for me to master the software to clip videos. I had no knowledge of video clipping before. Also, I am a ‘computer idiot’ and I have to explore how to use the video clipping software starting from zero. During the video clipping, whenever I encounter any technical problems, I tried to find the solutions on the internet. Video clipping skills are useful to me for my future because videos are good media popularized over the world. This is my first time to publish a video on YouTube” (S22)

“Learnt some new skills on filmed video and come to know that a stable platform is important to shoot a video. So I am always on alert to reduce sway of camera which can decrease the effect of a video. I think that different angles to take a video can bring about different effects. Now more university assignments need videos. I think those skills can enhance my ability of shooting videos for my future assignments.” (S3)

“Before starting the project, I was a video editing idiot. I never touch video editing before since most of my assignments only required writing ability. As I know the project need video editing skills, I joined a video clipping class held by the college. I learned some basic skills on video clipping and camera shooting, such as master shots, establishing shots, shot transitions, straight cuts, fade ups and fade downs, etc. I found that shooting skills are important elements of making a good video. Under different conditions, different camera shots should be used. In the project, one of our group members was familiar with video clipping, but not with camera shots. I tried my best to apply the skills learnt in the video clipping class to shoot the scene perfectly. Although I was not familiar with the video editing, I tried my best to assist him by

providing suggestions on background music, finding some sound tracks and arranging the flow of the video.” (S34)

After completion of the teaching video, most of them acquired some basic skills in designing story boards, shooting videos, editing videos and uploading them for sharing.

6.4.2.2 Theme 2: Gained Varied Skills

This collaborative learning aimed to help improve undergraduate students’ self-efficacy, social skills and nutrition knowledge in learning Diet in Health and Disease. The sub-themes related to gained varied skills are discussed in more detail here.

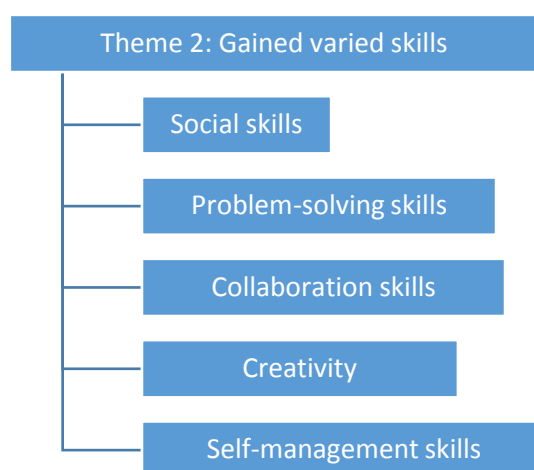


Figure 6.3 Theme two of the second cycle of the action research. Students perceived that they gained varied skills including social skills, problem-solving skills, collaboration skills, creativity and self-management skills.

Sub-theme: Social Skills

Social expressiveness, social sensitivity, social control and social manipulation are the four important components in social skills (Riggio, 1986; Riggio & Reichard, 2008). These are related to the verbal communication skills in expressing, interpreting and understanding social situations, social norms and roles, and the skills in role-playing and social self-presentation (Riggio & Reichard, 2008). In the collaborative learning, the students were required to communicate with group mates. They gained the social skills and communication skills through the process of collaborative learning. The following are excerpts from the reflective journals of some of the

students that support these views:

“Our group had enough communication and discussion. We could learn different knowledge through the discussion. Also, we could make the best decision that is beneficial to the project.” (S26)

“We worked as a team in the whole project, from project planning to presentation. When we started our project, all members contributed their ideas, and discussed again and again to agree on the topic included in the story outline. Also, we always used the multimedia channels such as WhatsApp, Facebook and Google Drive to share the information and communicate with others. Then, all members can contribute directly to the project.” (S34)

“We developed a good style of communication. At the beginning we might not be so familiar with the others. We were scared to express ourselves during project preparation. However, we came up with the best communication method within our group quickly, which is to voice out our ideas directly like brain storming.” (S15)

“Besides, I practiced my communication skill during the discussion of the project with my group mates. We were working effectively, searching for information on the official and authoritative pages, suggesting new ideas on the video and solving technical problems together. I learnt how to share my views with others and listen attentively to their ideas, as well as acquire more communication and problem-solving skills through the project.” (S16)

Apart from gaining communication skills, they also learnt the presentation skills through the process of collaborative learning. Here are their views:

“I found out that I can give a good presentation as long as I have enough preparation and confidence. Now, I am more confident in giving presentations” (S26)

“It is quite hard for me to memorize all information, so I always need to retake the shot again and again. Finally, we used an effective way to solve the problem. We used the recording method which helped me a lot to fluently read out the scripts. Also, we used a big screen to show the important information to the audience. This method not only displayed the information more clearly, but also let me present the information easily and confidently. After overcoming this challenge, our presentation skills and problem skills improved.” (S34)

However, this finding was not consistent with an insignificant increase in the mean scores on the social skill level from SSI. The Wilcoxon Signed-rank Test was used to compare the distribution of the scores between pre- and post-mean scores from SSI on the social skill level from SSI. The mean increase in mean scores on the social skill level from SSI is 2.14. The Wilcoxon Signed-ranks Test indicated that the median of the post-test ranks, $Mdn = 5.00$, were statistically significantly higher than the median of the pre-test ranks, $Mdn = 2$, $Z = -0.50$, $p < 0.615$. The students showed an insignificant increase in their mean scores on the social skill level.

The increase in the means of the pre- and post-mean scores on the social skill level from SSI between male and female students were 4.23 and 1.0 respectively. The Wilcoxon Signed-ranks Test indicated that the median post-test ranks, $Mdn = 5.00$, were statistically significantly higher than the median pre-test ranks, $Mdn = 2$, $Z = -0.50$, $p < 0.615$ and the increase was small (Cohen's $d = 0.08$) (Cohen, 1992). The students revealed an insignificant increase in their mean scores on the social skill level.

The ANOVA analysis of pre- and post-mean scores on the social skill level from SSI of male and female students is shown in Table 6.5 below. The result showed that there was a statistically insignificant difference between the male and female groups.

Table 6.5: ANOVA Analysis of Pre- and Post-mean Scores on the Social Skill Level from SSI of Male and Female Students

Social skill level from SSI	Sex	Mean	N	Std. Deviation (SD)	df	F	Sig.
Pre-mean score	Male	275.31	13	28.74	Between Groups 1	0.003	0.957
	Female	274.75	24	30.88			
Post-mean score	Male	279.54	13	19.23	Within Groups 35	0.197	0.660
	Female	275.75	24	27.23			

Sub-theme: Problem-solving Skills

As most students did not have previous knowledge on nutrition and on information technology techniques related to shooting and editing a video, they faced different types of challenges in the process of the collaborative learning. Through this process, some students admitted that they acquired problem-solving skills. The following support excerpts are from some of the students:

“We met some problems, such as content problems, technology problems, arguments amongst us and difficulties in arranging meetings in the project. We tried to communicate with one another by different methods to offer help when someone felt confused.” (S19)

“Although we once faced the problem of editing the video, we could solve this problem in a short time. We found a piece of software ... and we could use it to edit our video.

We started to edit our video by putting in some background music and putting the

English subtitle into the video. With great co-operation, we finally had a bigger success.

And we thought that our video was very interesting and very creative.” (S2)

“When doing the difficult parts in the project, we would face the challenge together and helped each other out. Being part of the group, we need to have team spirit to face and solve all problems together.” (S35)

“I have developed problem-solving skills. When we encountered any problems, we would try our best to find solutions. I also realized that we should work carefully in each stage of the project.” (S26)

“I have developed communication skills and problem-solving skills with my group mates. Since it was needed to draft the scripts for the collaborative project, therefore, we discussed the flow and the content of the scripts together. This process enhanced our communication skills. In addition, there were some problems in the order of the scripts in the shooting process. We solved this problem together and we could successfully finish the shooting on time.” (S31)

When the students faced problems during the process, they tried to discuss amongst themselves and solve the problems together.

Sub-theme: Collaboration Skills

Collaboration skills refer to the skills in listening, appreciation and negotiation with peers. These skills are important to help students engage effectively in tasks and teamwork, and help them build up good relationships with peers. In this collaborative learning, most students believed that they gained collaboration skills in the process. They reported that they worked and cooperated well with their peers.

“I learnt that good preparation and team spirit were very important to our work because they would affect the process of shooting the video. And then, I knew that

division of work was also important because the project required group work and we needed to maintain good working relationships with other group mates. If we did not co-operate with other group mates well, I believed that our video might not have been completed successfully.” (S10)

“We could allocate tasks and finish them without delay. All group mates are very collaborative. Every one of us had provided ideas to compile the checklist and the questions that we would ask in interviews etc. In short, we collaborated with each other very well.” (S12)

“I think we gained a big success because everyone was fully engaged in this project. We were enthusiastic to work on this project with a good cooperation amongst ourselves.” (S17)

Besides cooperating well with their group mates, they also learnt how to appreciate group mates' effort and show empathy for other people.

“I was not familiar with the video editing software since I did not have any experience of video editing before. However, video editing was important for this project because the video could help explain the knowledge clearly....Thus, I needed to learn how to use the video editing software. It was not easy to learn and use the software within a short time. Fortunately, one of my teammates was good at video editing. He taught me the skills of video editing and helped us improve the video.” (S26)

“My group mates were helpful and friendly. One of them was good at video making and he was willing to take up the job to record the video and prepare the subtitle on the video. I really admired his advanced computer technology skills.” (S6)

“I want to praise my group mates for their support and contribution. They were excellent teammates.” (S19)

“I appreciated all my group mates’ efforts and support. We spent time together searching for accurate diet information, designing the rundown of the video, discussing the story line, and allocating work equally among teammates. I was very impressed by their creativity and they were all very considerate and understanding so that the project could run smoothly and successfully” (S20)

Moreover, they learnt how to listen and work as a team.

“I think our members were easy to get along with because every suggestion was with rationales that worked. When we shot the video, our team was flexible and creative to accept new ideas and we were ready to accept new suggestions and put them into practice.” (S13)

“We worked as a team. The co-operation was good and we coordinated like parts of a human body. Some members were good at leading, while some of us were good at organizing.” (S9)

“We were working effectively, searching for information on the official authoritative pages, suggesting new ideas on the video and solving the technical problems together. I learnt how to share my views with others and listen attentively to their ideas, as well as acquire more communication and problem-solving skills through the project” (S16)

Through this process, the students developed friendship with one another.

“I made three friends in this project, not only doing project work with them, but having fun and sharing happiness with them too” (S24)

“Four of us become close friends after this project. We often speak our own ‘language’. For example, if one of us mentions ‘gout’, another one will echo ‘should be an emperor disease’ in Cantonese, following the lyrics of our rap song which we created ourselves.

This friendly and funny communication strengthens our friendship” (S33)

“I was able to understand other students deeply, and could be friends with them” (S4)

“In addition, we have invited several friends to perform in our video. One of them will act as a long-distance runner who will participate in a marathon race next year. We can talk a lot on marathon amongst ourselves and this can boost our friendship.” (S45)

Sub-theme: Creativity

Some students said that the assessment components of their previous courses were just presentation and essay writing. They stated that video making as one of the assessment components would be interesting. They thought that making a teaching video helped them stimulate their creativity, especially in writing scripts.

“Collaborative project made us more creative in designing a video on diet tips for marathon training.” (S45)

“I feel really proud of my group. It is the biggest success for me. I enjoy learning in this way very much as I can also watch the other groups’ creative performances.” (S2)

“Collaborative learning not only gave me a chance to apply what I had learnt in the lessons, but also put my creative ideas into the video clips.” (S23)

“I learnt the drama skills during the videotaping. At the beginning, we needed to design the scripts and we tried to add some funny and exciting scenarios beside the nutrition knowledge for running marathons. It definitely helps stimulate our creativity.” (S22)

Sub-theme: Self-management Skills

Self-management skills involve preserving emotional stability and handling stress. It is important to help students build self-esteem and accomplish goals. Through the process of collaborative learning in this study, the students believed that they developed self-confidence and

self-awareness. The following excerpts from the reflective journals of some of the students support these views:

“I have improved my presentation skills as well. At the beginning, I was nervous to do a role play and presentation in the video. I usually forgot the scripts when we were filming the video. After making an effort, I succeeded in completing the video finally. I found out that I could give a good presentation as long as I had enough preparation and confidence. Now, I become more confident in presentations.” (S26)

“I always hope that I can be more confident in presentations. In this project, I had the advantage of learning presentation and content skills from other groups. ” (S47)

“ ... with filming skills, it can help me increase my self-confidence.” (S49)

“The biggest success for me is that we finally did a good job in the video presentation. I could see our education video not only provided information of Osteoporosis to the audience, but it also made them laugh and attracted them most of the time. We were happy to see this result. Moreover, in the project, I went out of my comfort zone to perform a character which was not similar to my personality in my real life. This performance chance increased my self-efficacy.” (S34)

This finding was consistent with the significant increase in the mean scores on the self-efficacy for learning and performance from the Motivated Strategies for Learning Questionnaire. The Wilcoxon Signed-rank Test was used to compare the distribution of the scores between pre- and post-mean scores on the self-efficacy for learning and performance from the Motivated Strategies for Learning Questionnaire. The mean increase in self-efficacy for learning and performance was 0.3. The Wilcoxon Signed-ranks Test indicates that the median post-test ranks, $Mdn = 5.00$, were statistically significantly higher than the median pre-test ranks, $Mdn = 4.88$, $Z = -2.20$, $p < 0.027$ and the increase was small (Cohen's $d = 0.36$)

(Cohen, 1992). The students showed a significant increase in their self-efficacy for learning and performance.

Apart from gaining self-efficacy in learning and performance, they developed self-awareness and achieved goals. The following excerpts from the reflective journals of some of the students support these views:

“In my opinion, this learning experience tells me about my potential as a person, especially knowing what my strengths and weaknesses are. I believe that such awesome learning method could help me apply what I learnt in lectures.” (S37)

“One of my weaknesses is role-playing. I was very unnatural in front of the cameras. So I needed a lot of time to prepare for this role. In the end, I was able to overcome this weakness. I am glad that I succeeded in role-playing the character in the collaborative project” (S4)

Moreover, among the 49 students, most of them (n=38, 77.6%) stated that they fulfilled all the goals set at the beginning of the collaborative learning. Only 4.1% (n=2) mentioned that they only fulfilled some of the goals. And 18.4% (n=9) did not mention whether they fulfilled the goals or not in the reflective journals.

6.4.2.2 Theme 3: Developed Positive Values and Attitudes

This collaborative learning aimed to help improve undergraduate students' self-efficacy, social skills and nutrition knowledge in learning Diet in Health and Disease. The sub-themes of 'developed positive values and attitudes' will be discussed in more detail in this section.



Figure 6.4 Theme Three of the third cycle of the action research

Sub-theme: Respect for Others

Values and attitudes are important qualities of students. The students developed positive values and attitudes via the process of the collaborative learning. In the project, they were required to discuss and collaborate together for co-constructing the teaching videos. During discussion, good communication with group mates was very important. Some students perceived that their group mates were willing to listen to others' ideas and work harmoniously. Most students knew how to respect others even if they had different views. The following excerpts from some of the students' reflective journal support these views:

"Respect ... Sometimes, our point of views were not the same, we still could respect each other's stance in a polite way and tried to compromise to arrive at the most suitable solution." (S17)

"We accepted and respected one another and listened to them patiently before making any changes and giving comments to ensure adequate information had been considered in the video... The group worked harmoniously with respect. Everyone had their

distinctive roles in the project” (S45)

“We understood that we might have different ideas on recording methods and writing scripts. It might be a challenge for us to meet the deadline. Fortunately, we didn’t have too much of a problem and we could manage our discussion time well. At the same time, we achieved mutual respect and acceptance of one another and are proud to say this was the main success of our video production.” (S46)

“As a team, we would accept the comments from the others and discussed a lot ...” (S24)

Even though the students faced problems and challenges, most of them tried to work well and respect one another. However, not all students had the respect of their peers. One student mentioned that she was not happy because her opinion was not accepted by her group mates.

“Sometimes, I felt unhappy because my group mates did not respond to my ideas and ignored my suggestions; thereby, I was afraid to share my own thoughts. Nevertheless, I was not angry and tried hard to work harmoniously with them. On the whole I contributed in designing the scene, controlling the video shooting and acting in the video. If I face similar situations in future, I will voice out my true feeling and hope I can be better accepted by other people. This experience shows that our team leader did not ensure that everybody has opportunities to share their opinions.” (S32)

Sub-theme: Responsibility

In this collaborative learning, the students were required to co-construct a teaching video. Most of them claimed that they discussed and shared their workload evenly. Through the collaborative learning, the students knew their rights and responsibilities. The following excerpts from some of the students’ reflective journals support these views:

“Responsibility ... Different group mates had different assigned jobs. For me, I was responsible for video editing. Since I wanted to add more fun to our educational video, I inserted a news report sound effect although it was not required. My group mates also put in great efforts in perfecting their work. We all contributed as much as we could and everyone could complete the assigned work on time.”(S17)

“Our group had good allocation of the work that everyone had a fair share of the workload and responsibilities.” (S19)

“Each of the group mates had borne their responsibility to contribute in the video. Therefore, we had only used two day to finish the recording.” (S39)

“All in all, we joined effort in the video. Every member can play an important role and cooperate with others in the project. Besides, we can deal with problems actively. When we met different problems during the project, we must come up with different solutions by brainstorming as it can help us to find out the best solution to overcome the problems.” (S40)

Sub-theme: Commitment

A fair share of responsibilities and enthusiastic work commitment were crucial to get the task completed in collaborative learning (Goodsell et al., 1992). When the students were faced with the challenges, everyone put in effort, time and commitment to solve the problems together. They reported that they were committed and everyone put in effort to complete the teaching video and strived to perform well. The following excerpts from some of the students’ reflective journals support these views:

“The knowledge of video cutting of all the members was limited. However, all members put in efforts and united to work on the video. Finally, the video was produced satisfactorily.” (S43)

“One of the bigger challenges was designing the video storyboard. It was because we put in too much information in such a short video. We used too much time to select and compile the contents with an aim to educate the audience as much as possible. Also, we designed some attractive parts to draw the attention of the audience and we had to spend more time.” (S19)

“I took up a new task. This time, we needed to put a graphic on the video to facilitate the understanding of the audience. We thought it would be easy but in fact it was not. It was because the graphic needed to be simple, informative and yet attractive at the same time. It was especially challenging when designing a graphic to deliver a long, complicated message. We invested quite a long time in designing the graphic.” (S25)

“Video editing was a big challenge ... I did not have any skills and knowledge about video editing; therefore, I spent a lot of time on video editing. Despite the difficulties... It was because I spent much time on video editing and in the process I gained the experience of making the video funnier and attractive to the audience.” (S7)

6.4.3 Discussion

6.4.3.1 Self-efficacy

The undergraduate students' perception over changes in the self-efficacy after this collaborative learning and the self-evaluation in the Motivated Strategies for Learning Questionnaire was used to support the findings. The undergraduate students attributed the achieved goals, 'developed self-confidence' and 'commitment' to the sub-themes that contributed to the enhancement of their self-efficacy in learning Diet in Health and Disease. The undergraduate students expressed that they had achieved their learning goals in terms of the enhancement of students' confidence and the significant improvement of the mean scores of self-efficacy in learning. Also, they showed effort and commitment in the collaborative learning process.

This study's result is consistent with Stump et al.'s study that students' self-reported collaborative learning strategies were associated with increased self-efficacy for learning course material and improved course grade (Stump et al., 2011). The enhancement of the self-efficacy in collaborative learning is also consistent with other studies that students learnt and observed the behaviors of the peers. Many authors mentioned that the process of observing peers positively helped students achieve academic attainment (Cohen, 1994; Johnson, 1989; Pajares, 1996). Bandura (1995) proposed that a vicarious experience is one of the four sources of self-efficacy. Vicarious experiences are important sources of self-efficacy when people do not have previous experiences about tasks. In this collaborative learning, most students expressed that they did not have previous experiences in studying the nutrition subject and did not have previous experiences in producing a video. Therefore, vicarious experiences become more important in this study. Through the process of collaboration, the students observed the successes of other students and learnt from others. According to Schunk, "this form of efficacy

information is particularly powerful when people observe models who they believe possess similar capability as themselves” (Schunk, 2010, p.669).

Self-efficacy is hypothesized to influence the choice of activities, effort expended and persistence (Bandura, 1986). Most students showed effort in working toward the goal even though they faced challenges. They responded that they were committed and everyone paid effort to complete the teaching video and tried to perform well. This study is consistent with Klassen and Usher’s study which explained that self-efficacy is a direct motivator. Self-efficacious people increase effort and persistence, and eventually this leads to achievement (Klassen & Usher, 2010). The effort and persistence on tasks or activities can reflect the level of self-efficacy of students. When self-efficacious students face difficulties, they put greater effort, persistence and less doubt to solve the problems. Self-efficacy affects both directly and indirectly people’s behavior. When students encounter challenges, everyone needs to pay effort, time and commitment to solve problems together. By using the collaborative learning approach, the responsibility for learning was shifted onto the students in the learning program. It provided the chance for the students to demonstrate their knowledge by helping their classmates (Bargh & Schul, 1980). This problem solving techniques by modeling their peers were enhanced too (Schunk & Hanson, 1987; Bandura, 1995).

Another explanation for the enhancement of self-efficacy of the students is the theory of social interdependence (Johnson & Johnson, 1999). In positive interdependence of collaborative learning, students facilitate and encourage one another to work toward common goals (Johnson & Johnson, 1999). Therefore, the students gained self-efficacy in learning and performance in this collaborative learning; moreover, they attained self-efficacy and self-awareness of themselves and then, they worked toward the goals. In this collaborative learning, most of the undergraduate students fulfilled goals previously set with success. This study’s result is consistent with the findings of other studies (Bandura, 1988; Bong & Clark, 1999;

Locke et al., 1984; Schunk & Rice, 1991). Bong and Clark (1999) stated that self-efficacy is one's judgment of being capable of succeeding at a task, and, as such, is often conceptualized as an antecedent to other motivational constructs, including goals. The self-evaluation of the goal progress helps people enhance their feeling of efficacy (Schunk & Rice, 1991; Bandura, 1988). Locke et al.'s study showed that self-efficacy is related to goal commitment and performance if students are to set the goal on their own and not assigned by teachers. In this collaborative learning, the students were asked to set mutual goals with their group mates. Therefore, these self-set goals helped the students achieve goal commitment and performance. The result is also supported by Bandura and his colleagues' study. They recognized that goals play an important role in task performance (Bandura & Cervone, 1983). Locke and Latham's study (2006) also explained that learning goals promote metacognition of students. The metacognition includes planning, monitoring and evaluating progress toward goal attainment. Therefore, goal-setting can act as guidance for students to pursue goals and help develop self-efficacy. The relationship between goal-setting and self-efficacy is reciprocal. Increased self-efficacy improves the quality of the next goals (Artino, 2012). To sum up, the self-set goals impacted on the students' self-efficacy in learning as illustrated in this research.

6.4.3.2 Enhancement of nutrition knowledge

A majority of the undergraduate students had enhancement of their nutrition knowledge after participating in this collaborative learning. The majority believed that they improved in their nutrition knowledge through building up the foundation of knowledge on nutrition, clarifying the myths, and gaining knowledge by giving advice on some nutrition related diseases. During the process of co-constructing the teaching videos, the students recognized that they had acquired knowledge in diet and diseases through searching for evidence-based nutrition information and writing the scripts. The students believed that they had the ability to

give advice to their friends and families and some myths were clarified after searching for new information. Moreover, the checklist helped the students test their knowledge in understanding the twelve assigned topics and to summarize the main points of the various topics. In the collaborative learning environment, the students had the opportunity to engage in discussions and take responsibility for their learning. The students needed to discuss problems identified and find solutions, through which they enhanced their knowledge. This study result is consistent with Gokhale's study (1995) in that the students developed more understanding, gained pooled knowledge and experience, obtained more helpful feedback from their peers, and had new perspectives about the learning after going through the process of collaborative learning in this study.

Knowledge building through collaborative learning environment can be explained by Vygotsky's study (1978). According to Vygotsky (1978), students are able to perform more and higher intellectual level thinking when they are being engaged in collaborative situations than they are working alone. With reference to the theory of social constructivism, knowledge is developed through the cognitive activity that occurs during discussions and debates with other people. The social interactions serve as a scaffold for the cognitive activity to enhance learning and knowledge building.

A significant increase was found in the mean scores on the paired *t*-test of pre- and post-mean GNKQ-R of the students after the collaborative learning. A great improvement was found in the understanding of unsaturated fat and most students knew that a moderate amount of unsaturated fats is good for heart health after participating in the collaborative learning. The students also made a big improvement in knowledge related to dietary recommendations. The enhancement of nutrition knowledge was acquired highly likely through searching for nutrition information. In preparing the scripts for and giving health education advice in the teaching videos, the students needed to master the basic concepts of nutrition and to know more about dietary

recommendation tips in order to enrich the contents of their teaching videos.

The result showed that the students were still confused between the nature and the calories of natural sugar and sweetener. A possible reason was that the teaching video mainly focused on dietary advice on food choices for diabetes mellitues, while no information related to sweetener was covered in this video. And the second reason is that the lecture on basic nutrition also did not cover the usage and the nature of sweetener. The result of this study is consistent with other studies (British Nutrition Foundation, 2010). Consumers were unsure about how low calorie sweeteners were used, whether or not the sweeteners were beneficial for weight loss. It is necessary to emphasize and provide latest nutrition information on low calorie sweeteners to students and consumers in nutrition education.

Most students did not know that breakfast cereals and bread are typically high in salt in the pre-test. A possible reason is that the perception of these as healthy food is deep in the minds of the general public. In fact the students were not aware of the hidden salt inside the so-called healthy food such as breakfast cereal and bread.

The public image of red meat is that it is unhealthy. This study's result is consistent with another study (Van Wezemael et al., 2010). Some consumers believed that they should diminish their consumption of red meat. This may explain why the students had confusion about red meat though it is high in fat but low in salt.

The students were confused about the different types of fats in the pre-test. This result is consistent with a local report (The Food and Environmental Hygiene Department and Centre for Food Safety, 2012) saying that most people are confused in the different types of fats. The result also highlights the urgent need to put more emphasis on the knowledge in the different types of fats because people in Hong Kong have relatively low awareness of these nutrients and the majority consider only fat as a whole as relevant to their health.

The mistakes made by most students were in the question which asked them to pick chips

of thick-cut, thin-cut or crinkle-cut in the pre-test. Students were not clear about the concept of glycermic index. Again, this topic was not covered in the teaching video on Diabetes mellitus and the lecture on basic nutrition concepts. The results showed that the students made great improvement and acquired more knowledge related to food choices. The possible reason for this is that the students were asked to give dietary advice in their teaching videos and they needed the knowledge in advising healthy food choices.

However, there was only a small increase in the number of students who could identify the benefit of eating less red meat in reducing the chances of getting cancer in the post-test. This study is consistent with other studies that the students focused more on the World Health Organization's claim about the relationship between preserved meat, such as sausage and luncheon meat, and the chance of getting cancer in the recent world news (Stacy, 2015).

Overall, the female students scored significantly higher than the male students in the knowledge questionnaire as a whole in the GNKQ-R scores. The result is also consistent with the local report (The Food and Environmental Hygiene Department and Centre for Food Safety, 2012) that females aged between 30 and 49 with matriculation or tertiary education were the demographic sub-segment with a higher percentage of frequent buyers of prepackaged food and frequent readers of the nutrition labels on products bought for the first time. Generally, females have more concern or interest about nutrition knowledge.

To sum up, the enhancement of students' nutrition knowledge was found after participating in this collaborative learning.

6.4.3.3 Social skills

The reflective journals and the pre-post instruments were collected to explore the effect of the collaborative learning on the enhancement of students' social skills. The undergraduate students attributed the 'social skills', 'collaboration skills' and 'responsibility' to the sub-themes that enhanced their social skills in the collaborative learning.

Social expressiveness, social sensitivity, social control and social manipulation are the four important components in social skills (Riggio, 1986; Riggio & Reichard, 2008). These four important components are facilitated by the verbal communication skills in expressing, interpreting, understanding the social situations, social norms and roles, and the skill in role-playing and social self-presentation (Riggio & Reichard, 2008). The students stated that they gained the communication skills through the process of collaborative learning. The results are consistent with Sultan and Hussain's study. Sultan and Hussain's study (2012) found that undergraduate students gained more social skills and self-esteem in collaborative learning than the case if they worked individually. Cohen (1992) explained that collaborative learning promoted social interactions among students. Collaborative learning provides such conditions for students to discuss and work together towards common goals and facilitates them for social interactions. Hussain and Sarwat (2010) also affirmed that an interactive process was important and effective in learning to enable learners to accomplish their academic tasks. Social skills are enhanced by collaborative learning because students feel less academic stress and anxiety in their social interactions in collaborative learning (Kessler & McLeod, 1985). Vygotsky's cognitive-development theory (1978) explains why social skills will be developed through collaborative learning. Vygotsky believed social interactions are important for learning. Learning is facilitated by interactions between peers such as verbal discussions and observation of peers. Social interactions enabled students to understand what they observe; then, copying and internalizing help students learn.

The results are consistent with Smith and MacGregor's study (1992) which stated that learning is the outcome of social interactions and to them collaborative learning is socially and intellectually involving. In this study the students were working in groups of two or more, all participating in the process and working toward the goals and finishing the tasks. Therefore, the collaborative learning helped students learn socially and finally enhanced their social skills.

Farrington and his colleagues (2012) viewed social skills as one of the non-cognitive factors that affect academic achievement. Social skills include interpersonal skills, empathy, cooperation, assertion and responsibility. Most students in this study believed that they gained collaboration skills in the process. They thought that they worked and cooperated well with peers. Collaboration skills help students engage effectively in tasks and teamwork and help students build up good relationships with peers. These results are consistent with Webb's study. Webb (1993) found that students achieved higher scores in mathematics when they were working in groups than the case if they worked individually. Gokhale (1995) claimed that collaboration is effective and it has a powerful effect on student learning and performance. Based on the social interdependence theory, cooperative efforts are based on intrinsic motivation generated by interpersonal factors and a joint aspiration to achieve a significant goal. Therefore, collaborative learning helps students gain cooperation in their common goals. In turn, their social skills will be enhanced too. Piaget also described two types of social interaction: constraint and cooperation. Cooperation is related to people's personality. The achievement of goals is the coordination of individual feelings and perspectives with others' feelings and perspectives (Piaget, 1995). In this study, the students developed cooperation and this helped them gain more social interaction skills and enhances their overall social skills as a result.

Not all students gained respect from their peers. One student expressed that she was not happy. Her opinions were not accepted by her group mates. Conflicts are a natural part of human interaction. This result is also consistent with other studies (De Dreu & Weingart, 2003; Jehn &

Mannix, 2001; Pekrun, Goetz, Titz, & Perry, 2007). Studies have shown that some conflicts can be positively related to team outcomes by encouraging team members to have greater understanding of issues (De Dreu & Weingart, 2003) and empowering group cohesion and member commitment (Jehn & Mannix, 2001). However, if group members are challenged out of their comfort zone, these conflicts may lead to frustration and personality clashes and which affect negatively group cohesion, commitment, satisfaction and performance (De Dreu & Weingart, 2003; Jehn & Mannix, 2001). Some researchers stated that emotions and their regulation are essential in learning successfully (Pekrun et al., 2007). Emotional expression is beneficial in collaborative learning as it helps students to take into account one's feelings and to modify the group's interaction accordingly (Boekaerts, 2011). Järvenoja and Järvelä (2009) suggested that letting students aware of how different group members' interpretations differ from their own may help groups avoid emotional conflicts and solve whatever challenges they encounter. Moreover, scaffolding techniques could be suggested to the groups for the regulation of both cognitive and socio-emotional processes. These may be possible ways to improve the quality of collaboration and academic achievement.

In addition to cooperating well with the group mates, the students also learnt how to appreciate group mates' effort and to show empathy. Empathy is the "awareness of other person's emotions. Having interest in other person's words and feeling, taking care of another person ..." (Jurevičienė, Kaffemanienė, & Ruškus, 2012, p. 46). This refers to the abilities to recognize and acknowledge other's feeling. This study result is consistent with Jurevičienė's study (2012) that most of them claimed that they discussed and shared their workload evenly. Through the collaborative learning, the students knew their rights and responsibilities. When the students encountered challenges, everyone needed to spend efforts, time and commitment to solve the problems together. Farrington and his colleagues (2012) stated that social skills include interpersonal skills, empathy, cooperation, assertion and responsibility. In this study, the students

demonstrated cooperation, learnt to show empathy and assumed responsibility in this collaborative learning which in turn built students' social skills.

Johnson and Johnson (1999) further developed the social interdependence theory with the identification of five essential elements of cooperation which include positive interdependence, individual accountability and personal responsibility, promotive interaction, appropriate use of social skills, and group processing. All these elements are conditions for effective implementing of collaborative learning in classroom. The students developed cooperation and all assumed their share of the responsibility in this collaborative learning which in turn helped them develop social skills.

However, this finding is not consistent with other studies (Ferrer, 2004; Dollman, Morgan, Pergler, Russell, & Watts, 2007; Lavasani, Afzali, Borhanzadeh, Afzali, & Davoodi, 2011) in that there was only an insignificant increase in the mean scores on the social skill level from SSI. The mean increase in pre- and post-mean scores on the social skill level from SSI was 2.14. The statistic does not demonstrate a significant increase in their mean scores on the social skill level. Although there are no significant differences in the pre- and post-mean scores of SSI, it is nonetheless worthwhile to note that there are increases in some sub-scales. The most possible reason for this statistically insignificant result is the duration of the collaborative learning. Moreover, the differences in the SSI scores were not large enough to demonstrate significant differences.

To sum up, the enhancement of students' social skills was found after their participation in this collaborative learning.

6.4.4 Conclusion

In this study self-efficacy was found to be a strong predictor of academic achievement. Moreover, self-efficacy was positively related to academic achievement. To help the students better equipped with social skills and self-efficacy, collaborative learning seemed to be a good method as it necessitated active exchange of ideas between the students and led to the building up of social skills that facilitate learning.

In the third cycle of this action research, it was hypothesized that the students involved in the collaborative learning would develop more social skills, self-efficacy and knowledge that would further improve the students' learning. The collaborative learning was applied in nutrition education.

The findings support that most students achieved goals, experienced enhancement of self-efficacy in learning, improved their nutrition knowledge and social skills via their participation in this collaborative learning. The students attributed the achieved goals, 'developed self-confidence' and 'commitment' to the sub-themes that contributed to the enhancement of their self-efficacy in learning Diet in Health and Disease. Moreover, the students demonstrated an increase in nutrition knowledge in expressing their 'acquired knowledge in diet and diseases,' and the significantly improved nutrition scores. In addition, the students attributed the 'social skills', 'collaboration skills' and 'responsibility' to the sub-themes that contributed to the enhancement of their social skills in the collaborative learning. Thus, collaborative learning helped the students' enhancement in their self-efficacy, increased their nutrition knowledge and improved their social skills. Moreover, the design of the collaborative learning may add value to future research.

Chapter 7: Implications and Recommendations

7.1 Introduction

The findings of this research affirmed collaborative learning as a teaching pedagogy that could enhance the learners' self-efficacy and engagement in learning the English and nutrition courses. This chapter will conclude with a summary of the limitations and implications for further research. Recommendations for future research will be elaborated in this chapter too.

7.2 Limitations

Several limitations of this study should be borne in mind when interpreting its findings. The first limitation emerges from the duration of the collaborative learning. In the first and second cycles of the action research, the duration of the collaborative learning spanned twenty lessons (excluding the recruitment of subjects, holding of workshops, taking of public holidays and number of examination weeks). The limited time duration for the collaborative learning could be one of the primary factors that contributed to the insignificant result generated from the quantitative data of MSLQ and SSI. The time constraint in fact rendered the study inconclusive as to whether students' enhancement of engagement in learning and social skills was significantly changed. Nevertheless, these quantitative findings could supplement the qualitative data collected and thus could better reflect the collaborative learning experiences of the undergraduate students. By combining the quantitative findings with field observations and focus group interviews, a more in-depth description and explanation of the enhancement of self-efficacy, engagement, social skills and subject knowledge in the collaborative learning could be revealed.

The second limitation of this study is that the subjects were only recruited from EdUHK. Thus one may not be able to generalize the findings to other local universities. Moreover, the findings should be interpreted within the contexts of English language learning and nutrition education because this study targeted the learning issues encountered in the English and nutrition

courses only. Replication to other subjects requires adaptation with due consideration of similarities and differences across different subject contexts. Besides, as the two academic subjects were from EdUHK, the generalizability of the findings to other local universities needs to be further studied.

Lastly, the role of the researcher in conducting the action research is another issue of concern. As action research was adopted in this study, the researcher took on the responsibilities of facilitating change as well as collecting data in the process. This concern was addressed by the researcher strove to act transparently in each phase of the study and in her development of research relationships with the participants. Indeed, there were some negative comments collected from the participants, the researcher believes possible biases brought by her personal involvement were reduced to the least possible extent.

Despite these limitations, this study provides clear empirical support for the necessity to establish a collaborative learning pedagogy for teachers to enhance students' self-efficacy, engagement, and interest in subject knowledge exploration. Collaborative learning can help students learn effectively and enjoy the learning process.

7.3 Implications and Recommendations for Future Research

There was no relevant literature specifying the design of collaborative learning for enhancing self-efficacy, engagement and subject knowledge in learning. The design of the collaborative learning in this study was carefully constructed according to the literature, feasibility test and experiences collected in the three cycles of the action research. It is feasible to replicate the design of this collaborative learning in future research. The results of the analysis of this study indicated that collaborative learning could lead to an improvement in self-efficacy, engagement, social skills and subject knowledge.

To the researcher's knowledge this is the first study to investigate the effects of collaborative learning in the enhancement of undergraduate students' self-efficacy, social skills and subject knowledge. In terms of theoretical contributions, the generalization of King's Goal Attainment Theory in Linnenrink and Pintrich (2003) and Bandura's (1997) theories in this direction was new. This newly developed conceptual model is original and the research findings showed that the mutual goal setting process helped the students enhance their self-efficacy, engagement and subject knowledge. The analysis in this direction has seldom been discussed in the literature. The finalized conceptual model can provide references for later studies in collaborative learning for enhancing self-efficacy and engagement, as well as subject knowledge and social skills. The benefits perceived by the students in the study included increased self-efficacy in learning, increased engagement in learning, increased knowledge in subject matters, and gained varied skills including teaching, information technology, interpersonal, social skills, collaboration skills, problem-solving and self-management. Moreover, they developed positive values and attitudes after participating in the collaborative learning. The aforementioned skills are most often referred to as the 21st century skills, comprising critical thinking and problem solving, communication, collaboration, creativity and innovation, information, media and technology skills, and life and career skills which are increasingly being recognized as attributes that students need to be

equipped with to prepare for the increasingly complex life and work environment in the 21st century (Staff and Committee of The American Association of Colleges for Teacher Education and the Partnership for 21st Century Skills, 2010).

For future references, below is a breakdown of the design features in the last cycle of the collaborative learning:

1. Students' self-set goals in collaborative learning can encourage them to take responsibility of their work. Before student groups are asked to set their common goals, a short briefing is given to students about 'what collaborative learning is', 'the benefit of collaborative learning' and 'the roles and responsibilities of students in collaborative learning'.
2. The strategies and techniques for collaborative learning have been reviewed in previous sections. Here, five phases for designing instruction for collaborative learning are recommended. These five phases include engagement, exploration, transformation, presentation and reflections (Reid et al., 1989).
 - a. The engagement step includes some mini-lectures which provide some basic knowledge on the subject matter.
 - b. The exploration stage is to give students the opportunity to discuss and understand the new information they have collected.
 - c. At the transformation stage, students are asked to work with the information for understanding it better. To monitor students' learning and to address any misconceptions, student groups are required to share their ideas in class followed by question-and-answer sessions. Afterwards, the students are asked to further refine or explore the concepts.
 - d. At the presentation stage, students are asked to present their co-constructed knowledge to the class.
 - e. The reflection stage gives students the opportunity to comment and reflect on the

collaborative learning process.

3. Interdependence, either positive interdependence or mutual interdependence, is a fundamental construct for collaborative learning (Davidson & Major, 2014). Teachers usually use goals and task interdependence to foster positive interdependence. The goals of collaborative learning include both social and academic goals. The tasks used to foster positive interdependence can be in the form of structured learning tasks or assignments designed at varying levels of intellectual challenge.
4. As for how groups are formed, how or whether to teach interpersonal skills, the structure of the group and the role of the teacher, the results are inconclusive. For the optimal group size, a group of four is recommended as this will support positive interdependence and task allocation. Cohen found that the ideal group size should be four to five students (Cohen, 1994). Smith and MacGregor (1992) suggested the group size of two or more in collaborative learning sessions. Gokhale's study (1995) selected a group size of four.
5. Limited resources will foster interdependence (Davidson & Major, 2014). Therefore, students can be asked to produce co-constructed knowledge without full guidance and support, leaving them room to make exploratory academic inquiries.
6. Groups in collaborative learning are formed by students themselves. Collaborative learning never uses assigned groups and assigned group roles.
7. As regards how or whether interpersonal skills need to be taught, collaborative learning usually does not teach group interaction skills or group reflection skills. Collaborative learning groups are usually self-managed. The role of instructors tends to be less instructive with students on activities and tasks (Davidson & Major, 2014); only ground rules for collaboration are introduced to students during briefing.

The above seven design features are the recommendations for effective collaborative learning.

It is useful for teachers to replicate in future studies. All in all, further research is needed to test

the empirically-based theory with larger samples and over a longer period of time. Randomized controlled trials can also be used to determine the cause-effect relationship between collaborative learning and learning outcomes. One research direction is to study how collaborative learning can help develop students' 21st century skills needed by the future society.

7.4 Conclusion

To conclude, this study hypothesized that students involved in collaborative learning will develop more social skills and self-efficacy that will further improve their engagement in learning. Action research is adopted as the research design in this study. In Cycle One, the researcher based the study design on Bandura's self-efficacy belief and Linnenbrink and Pintrich's general framework for self-efficacy, engagement and learning. The researcher designed a collaborative learning and examined the effects of the collaborative learning on the undergraduate students' self-efficacy and engagement in learning English in the first cycle. Five undergraduate students completed the collaborative learning over a two-month period. Data were collected through questionnaires and focus group interviews at the end of Cycle One. The undergraduate students had significantly increased in their language self-efficacy scores. Three themes emerged from the undergraduate students (gained some sources of self-efficacy in learning English, increased in self-efficacy in learning English and increased engagement in learning English). These findings demonstrated that collaborative learning was feasible to be implemented and this helped the undergraduate students to gain self-efficacy and engagement in learning. Some strategies for helping students improve self-efficacy and engagement learning English could be further explored.

In Cycle Two, King's goal attainment theory was adopted in the collaborative learning. The researcher revised the conceptual framework in Cycle Two. The aim of this cycle was to ascertain the effect of the collaborative learning on the undergraduate students' self-efficacy

and engagement in learning English in the newly devised conceptual framework. Eight undergraduate students completed the collaborative learning in two semesters. Data were collected through questionnaires and focus group interviews at the end of Cycle Two. Goal setting impacted the enhancement of students' self-efficacy. Three themes emerged from the undergraduate students (improvement in English, gained varied skills and developed positive attitude in learning). These findings demonstrated that most students achieved their goals, perceived enhancement of self-efficacy and engagement in learning via participation in this collaborative learning. The exploration of the application of collaborative learning in a conventional classroom setting with other subject matters as the teaching content was further explored in the next cycle.

In the last cycle, the focus was to evaluate the effect of the collaborative learning on the undergraduate students in learning nutrition. Through the collaborative process, the undergraduate students' learning was assessed with respect to their self-efficacy, social skills and nutrition knowledge in learning nutrition. Forty-nine undergraduate students studied in this nutrition course using collaborative learning. The findings supported that most students achieved goals, experienced enhancement of self-efficacy in learning, improved their nutrition knowledge and social skills via their participation in this collaborative learning.

The findings of the study have consolidated the crucial role of collaborative learning in enhancing the knowledge in two subject areas, self-efficacy, and engagement in learning and in turn the enhancement of social skills. The collaborative learning pedagogy is constructed on the hypothesis that the collaborative approach is effective in improving self-efficacy, engagement and subject knowledge in learning and in turn improving social skills. The undergraduate students in the study experienced enhancement in all these areas after the collaborative learning. However, the duration of the collaborative learning was not long enough to get a statistically significant result to confirm that the positive changes in engagement and social skills were brought by

collaborative learning. Moreover, the effect size of collaborative learning in the enhancement of self-efficacy and social skills was small. It is suggested that future studies in this important teaching approach should use more subject areas and longer duration of time.

Last but not least, it is both important and feasible to introduce this collaborative learning approach into tertiary education. The students in this study enjoyed this learning approach and this in itself will help students using this learning approach enhance their learning.

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List of Appendices

Appendix A Information Sheet (English)

INFORMATION SHEET

Action research: Enhancing undergraduate student's self-efficacy and engagement in learning English through community service participation

You are invited to participate in a project conducted by Ms. Law Pui Sze Queenie, who are PhD student and is supervised by Prof. Chung Wai Yee Joanne, who are Chair Professor of the Faculty of Liberal Arts and Social Sciences (FLASS) in The Hong Kong Institute of Education.

The primary aim of this study is to examine the enhancement of students' self-efficacy and engagement in learning English through participation in a collaborative learning. The secondary aim is to investigate the short term sustainability in students' self-efficacy and engagement.

In the study, you will be asked to attend an English enhancement workshop. After attending a workshop, you will be asked to teach younger students' English through community service participation. Each class will be conducted in groups of three to four and will meet around once per week, for 20 classes. During the 20 classes, you will be supported with coaching from the Institute as well as the Lions Club of Hong Kong Sun.

You will be asked to complete three questionnaires before the English enhancement workshop, after 20 classes and 24 weeks after the last class. Moreover, you will be invited to join a focus group interview during pre and post of the 20 classes.

You have every right to withdraw from the study at any time without negative consequences. All information related to you will remain confidential, and will be identifiable by codes known only to the researcher.

If you have any concerns about the conduct of this research study, please do not hesitate to contact the Human Research Ethics Committee by email at hrec@ied.edu.hk or by mail to Research and Development Office, The Hong Kong Institute of Education .

If you would like to obtain more information about this study, please contact Ms. Queenie Law at telephone number or Prof. Joanne Chung at telephone number .

Thank you for your interest in participating in this study.

Prof. CHUNG Wai Yee Joanne
Principal Investigator

(March 2013)

THE HONG KONG INSTITUTE OF EDUCATION

Faculty of Liberal Arts and Social Sciences (FLASS)

CONSENT TO PARTICIPATE IN RESEARCH

Action research: Enhancing undergraduate student's self-efficacy and engagement in learning English through community service participation

I _____ hereby consent to participate in the captioned research is conducted by Prof. CHUNG Wai Yee Joanne, Ms. LAW Pui Sze Queenie and Dr. LEUNG Chi Cheung, Lawrence.

I understand that information obtained from this research may be used in future research and may be published. However, my right to privacy will be retained, i.e., my personal details will not be revealed.

The procedure as set out in the **attached** information sheet has been fully explained. I understand the benefits and risks involved. My participation in the project is voluntary.

I acknowledge that I have the right to question any part of the procedure and can withdraw at any time without negative consequences.

Name of participant

Signature of participant

Date

Appendix C Questionnaires

I. Language Self-Efficacy Scale

Instructions:

Suppose that you are asked to perform the following tasks **in English**. Please indicate **how confident you are** that you can **perform each task correctly**. You have 30 seconds only to attend to each task (You don't have to carry out the tasks.) It is important that you **do not guess** but give a realistic estimate of whether you can perform the task correctly. Please use the scale below:

If you are **not confident at all** that you can do it correctly, mark (/) 1

If you are **completely confident** that you can do it correctly, mark (/) 10

If the estimate of your confidence is between 1 and 10, mark the appropriate number from 2 to 9.

Please **circle one number only** for each task. Thank You!

No.	Task	Confidence Scale
1	Write an essay of about 400 words in length on what you did during the recent holidays.	1 2 3 4 5 6 7 8 9 10
2	Explain to a visitor the structure of the Diploma in Education Course you are in now.	1 2 3 4 5 6 7 8 9 10
3	Write a lesson plan for a topic such as 'Tell stories based on pictures'.	1 2 3 4 5 6 7 8 9 10
4	Give instructions to your pupils on how they should organize themselves for group activity.	1 2 3 4 5 6 7 8 9 10
5	Share with a friend what happened during the most memorable day in your life.	1 2 3 4 5 6 7 8 9 10
6	Make a complete sentence using the following simile: 'as cool as a cucumber'.	1 2 3 4 5 6 7 8 9 10
7	Take down notes as you listen to a cassette recording on 'Malaysian Handicraft'.	1 2 3 4 5 6 7 8 9 10
8	Explain the function of an adjective in a sentence.	1 2 3 4 5 6 7 8 9 10
9	Present an assignment on 'Questioning Techniques' in front of your class.	1 2 3 4 5 6 7 8 9 10
10	Read the following passage out loud to your classmates: <i>Discover Sabah... Awaken the competitive spirit or indulge in relaxing pursuits. This is one destination where you can do it all! Climb the summit of Borneo. Go white water rafting. Ride a steam locomotive past rustic scenery. Cruise down the Kinabatangan river. Re-track ancient headhunter trails. Dive in the world's top dive sites.</i> (Sabah Tourism Promotion Corporation, September 2002).	1 2 3 4 5 6 7 8 9 10

	material that arouses my curiosity, even if it is difficult to learn.							
17.	I am very interested in the content area of this tutoring class.	1	2	3	4	5	6	7
18.	If I try hard enough, then I will understand the tutoring class material.	1	2	3	4	5	6	7
19.	I have an uneasy, upset feeling when I take an exam.	1	2	3	4	5	6	7
20.	I'm confident I can do an excellent job on the assignments and tests in this tutoring class.	1	2	3	4	5	6	7
21.	I expect to do well in this tutoring class.	1	2	3	4	5	6	7
22.	The most satisfying thing for me in this tutoring class is trying to understand the content as thoroughly as possible.	1	2	3	4	5	6	7
23.	I think the tutoring class material in this tutoring class is useful for me to learn.	1	2	3	4	5	6	7
24.	When I have the opportunity in this tutoring class, I choose tutoring class assignments that I can learn from even if they don't guarantee a good grade.	1	2	3	4	5	6	7
25.	If I don't understand the tutoring class material, it is because I didn't try hard enough.	1	2	3	4	5	6	7
26.	I like the subject matter of this tutoring class.	1	2	3	4	5	6	7
27.	Understanding the subject matter of this tutoring class is very important to me.	1	2	3	4	5	6	7
28.	I feel my heart beating fast when I take an exam.	1	2	3	4	5	6	7
29.	I'm certain I can master the skills being taught in this tutoring class.	1	2	3	4	5	6	7
30.	I want to do well in this tutoring class because it is important to show my ability to my family, friends, employer, or others.	1	2	3	4	5	6	7
31.	Considering the difficulty of this tutoring class, the teacher, and my skills, I think I will do well in this tutoring class.	1	2	3	4	5	6	7

Part B. Learning Strategies

The following questions ask about your learning strategies and study skills for this tutoring class. Again, there are no right or wrong answers. Answer the questions about how you study in this tutoring class as accurately as possible. Use the same scale to answer the remaining questions. If you think the statement is very true of you, circle 7; if a statement is not at all true of you, circle 1. If the statement is more or less true of you, find the number between 1 and 7 that best describes you.

1 2 3 4 5 6 7
 Not at all true of me
 Very true of me

32.	When I study the readings for this tutoring class, I outline the material to help me organize my thoughts.	1	2	3	4	5	6	7
33.	During tutoring class time I often miss important points because I'm thinking of other things.	1	2	3	4	5	6	7
34.	When studying for this tutoring class, I often try to explain the material to a classmate or friend.	1	2	3	4	5	6	7
35.	I usually study in a place where I can concentrate on my tutoring class work.	1	2	3	4	5	6	7
36.	When reading for this tutoring class, I make up questions to help focus my reading.	1	2	3	4	5	6	7
37.	I often feel so lazy or bored when I study for this tutoring class that I quit before I finish what I planned to do.	1	2	3	4	5	6	7
38.	I often find myself questioning things I hear or read in this tutoring class to decide if I find them convincing.	1	2	3	4	5	6	7
39.	When I study for this tutoring class, I practice saying the material to myself over and over.	1	2	3	4	5	6	7
40.	Even if I have trouble learning the material in this tutoring class, I try to do the work on my own, without help from anyone.	1	2	3	4	5	6	7
41.	When I become confused about something I'm reading for this tutoring class, I go back and try to figure it out.	1	2	3	4	5	6	7
42.	When I study for this tutoring class, I go through the readings and my classnotes and try to find the most important ideas.	1	2	3	4	5	6	7
43.	I make good use of my study time for this tutoring class.	1	2	3	4	5	6	7
44.	If tutoring class readings are difficult to understand, I change the way I read the material.	1	2	3	4	5	6	7

45.	I try to work with other peer students from this tutoring class to complete the tutoring class assignments.	1	2	3	4	5	6	7
46.	When studying for this tutoring class, I read my tutoring class notes and the tutoring class readings over and over again.	1	2	3	4	5	6	7
47.	When a theory, interpretation, or conclusion is presented in tutoring class or in the readings, I try to decide if there is good supporting evidence.	1	2	3	4	5	6	7
48.	I work hard to do well in this tutoring class even if I don't like what we are doing.	1	2	3	4	5	6	7
49.	I make simple charts, diagrams, or tables to help me organize tutoring class material.	1	2	3	4	5	6	7
50.	When studying for this tutoring class, I often set aside time to discuss tutoring class material with a group of peer students from the tutoring class.	1	2	3	4	5	6	7
51.	I treat the tutoring class material as a starting point and try to develop my own ideas about it.	1	2	3	4	5	6	7
52.	I find it hard to stick to a study schedule.	1	2	3	4	5	6	7
53.	When I study for this tutoring class, I pull together information from different sources, such as lectures, readings, and discussions.	1	2	3	4	5	6	7
54.	Before I study new tutoring class material thoroughly, I often skim it to see how it is organized.	1	2	3	4	5	6	7
55.	I ask myself questions to make sure I understand the material I have been studying in this tutoring class.	1	2	3	4	5	6	7
56.	I try to change the way I study in order to fit the tutoring class requirements and the instructor's teaching style.	1	2	3	4	5	6	7
57.	I often find that I have been reading for this tutoring class but don't know what it was all about.	1	2	3	4	5	6	7
58.	I ask the instructor to clarify concepts I don't understand well.	1	2	3	4	5	6	7
59.	I memorize key words to remind me of important concepts in this tutoring class.	1	2	3	4	5	6	7
60.	When tutoring class work is difficult, I either give up or only study the easy parts.	1	2	3	4	5	6	7
61.	I try to think through a topic and decide	1	2	3	4	5	6	7

	what I am supposed to learn from it rather than just reading it over when studying for this tutoring class.							
62.	I try to relate ideas in this subject to those in other tutoring class whenever possible.	1	2	3	4	5	6	7
63.	When I study for this tutoring class, I go over my tutoring class notes and make an outline of important concepts.	1	2	3	4	5	6	7
64.	When reading for this tutoring class, I try to relate the material to what I already know.	1	2	3	4	5	6	7
65.	I have a regular place set aside for studying.	1	2	3	4	5	6	7
66.	I try to play around with ideas of my own related to what I am learning in this tutoring class.	1	2	3	4	5	6	7
67.	When I study for this tutoring class, I write brief summaries of the main ideas from the readings and my tutoring class notes.	1	2	3	4	5	6	7
68.	When I can't understand the material in this tutoring class, I ask another peer student in this tutoring class for help.	1	2	3	4	5	6	7
69.	I try to understand the material in this tutoring class by making connections between the readings and the concepts from the lectures.	1	2	3	4	5	6	7
70.	I make sure that I keep up with the weekly readings and assignments for this tutoring class.	1	2	3	4	5	6	7
71.	Whenever I read or hear an assertion or conclusion in this tutoring class, I think about possible alternatives.	1	2	3	4	5	6	7
72.	I make lists of important items for this tutoring class and memorize the lists.	1	2	3	4	5	6	7
73.	I attend this tutoring class regularly.	1	2	3	4	5	6	7
74.	Even when tutoring class materials are dull and uninteresting, I manage to keep working until I finish.	1	2	3	4	5	6	7
75.	I try to identify peer students in this tutoring class whom I can ask for help if necessary.	1	2	3	4	5	6	7
76.	When studying for this tutoring class I try to determine which concepts I don't understand well.	1	2	3	4	5	6	7
77.	I often find that I don't spend very much time on this tutoring class because of other activities.	1	2	3	4	5	6	7

78.	When I study for this tutoring class, I set goals for myself in order to direct my activities in each study period.	1	2	3	4	5	6	7
79.	If I get confused taking notes in tutoring class, I make sure I sort it out afterwards.	1	2	3	4	5	6	7
80.	I rarely find time to review my notes or readings before an exam.	1	2	3	4	5	6	7
81.	I try to apply ideas from tutoring class readings in other tutoring class activities such as lecture and discussion.	1	2	3	4	5	6	7

III. Demographic Information:

- Gender (circle it) Male Female
- What year are you in the institute? _____
- How many years do you learn English including the nursery and kindergarten? _____
Year(s)
- How many hour(s) a week do you study English? _____
Hour(s)
- Other opinion? _____

Thank you so much!

Appendix D Focus group interview questions (Chinese)

訪問指引

多謝你們參與今次之焦點小組，今次研究目的是有關參與社區服務(即是為中學生提供英文輔導課)對教院學生在英語上的自我效能 (self-efficacy) 及學習參與 (engagement) 的探討，有關今次各位提供的資料及內容，將會以保密形式進行，不會以個人意見發表。有關資料主要用作研究用途，焦點小組訪問會進行錄音，你有權隨時終止錄音或拒絕作答任何問題，而不會對各位有任何負面影響，我們首先發問一些有關你在參與是次社區服務的經驗：

1. 對於參與是次社區服務，對你個人掌握英語的能力有否影響？
(如有正面影響，你認為在那一方面有所提升？)
2. 你怎樣準備輔導課？
3. 在準備上有否遇到什麼困難？
(如有，在那一方面呢？你能夠解決嗎？解決方法為何？)
4. 在提供的輔導課上有否遇到什麼困難？
(如有，在那一方面呢？你能夠解決嗎？解決方法為何？)
5. 你對自己提供的輔導課有何評價？有何成效？
6. 對你個人有沒有得著？
(如有，是那方面的得著？請給我一些例子)
7. 每次完成輔導課後，你有沒有任何感想？
(例如課後檢討，如有，對於你個人掌握英語的能力有否影響？)
8. 參與是次社區服務，有沒有使用不同的策略掌握英語？
(如有，請給我一些例子)
9. 參與是次社區服務，對你的學習英語興趣有否影響？
10. 參與是次社區服務，對你的學習英語信心有否影響？
11. 參與是次社區服務，能夠實踐你學習英語的目標嗎？
12. 參與是次社區服務，對你的事業有否影響？
13. 你對於我們提供的英語工作坊有何看法？
14. 你認為英語導師對提升你的英語能力有否影響？
15. 將來，你是否願意參加類似的計劃？為什麼？
16. 你有沒有其他意見？

Appendix E Exit Questionnaire (Chinese)

教院學生問卷調查:

今次研究目的是有關參與社區服務(即是為中學生提供英文輔導課)對教院學生在英語上的自我效能 (self-efficacy) 及學習參與 (engagement) 的探討，有關今次各位提供的資料及內容，將會以保密形式進行，不會以個人意見發表。有關資料主要用作研究用途，問卷調查是有關你在參與是次社區服務的經驗。多謝你們的參與!

1. 你對於是次參與社區服務有何看法?

2. 對於參與是次社區服務，對你個人掌握英語的能力有否影響？(如有正面影響，你認為在那一方面有所提升？)

3. 你對於我們提供的英語工作坊有何看法？

4. 你認為英語導師對提升你的英語能力有否影響？

5. 你怎樣準備輔導課？

6. 在準備上有否遇到什麼困難？(如有，在那一方面呢？你能夠解決嗎？解決方法為何？)

7. 在提供的輔導課上有否遇到什麼困難？(如有，在那一方面呢？你能夠解決嗎？解決方法為何？)

8. 你對自己提供的輔導課有何評價？有何成效？

9. 對你個人有沒有得著？（如有，是那方面的得著？請給我一些例子）

10. 每次完成輔導課後，你有沒有任何感想？（例如課後檢討，如有，對於你個人掌握英語的能力有否影響？）

11. 參與是次社區服務，有沒有使用不同的策略掌握英語？（如有，請給我一些例子）

12. 參與是次社區服務，對你的學習英語興趣有否影響？

13. 參與是次社區服務，對你的學習英語信心有否影響？

14. 有沒有對你的事業有否影響？

15. 為什麼終止參加是次社區服務計劃？

16. 你有沒有其他意見？

問卷完！謝謝！

Appendix F Feedback questionnaire from secondary school students (Chinese)

中學生問卷

多謝你們參與有關香港教育學院與香港太陽獅子會合辦之社區服務(為中學生提供英文輔導課)。有關今次各位提供的資料及內容，將會保密，不會以個人意見發表有關資料主要用作研究用途。

1. 你對於是次香港教育學院學生所提供的英文輔導課有何看法？

2. 是次香港教育學院學生所提供的英文輔導課，對你掌握英語的能力有否影響？如有提升，你認為在那一方面有所提升？

3. 是次香港教育學院學生所提供的英文輔導課，對你學習英語的興趣有否影響？如有增加，你認為在那一方面有所提升？

4. 是次香港教育學院學生所提供的英文輔導課，你有何評價？
(請在線上選擇和畫上交叉"x")

0%	20%	40%	60%	80%	100%
非常不滿意					非常滿意

5. 你的出值率怎樣？(請在線上選擇和畫上交叉"x")

0%	20%	40%	60%	80%	100%
----	-----	-----	-----	-----	------

6. 是次香港教育學院學生所提供的英文輔導課，在那一方面仍有改善空間？

7. 將來，你是否願意參加類似的計劃？為什麼？

8. 其他意見？

個人資料：

1. 男 / 女 2. 年級: _____ 3. 來港年期: _____ 年

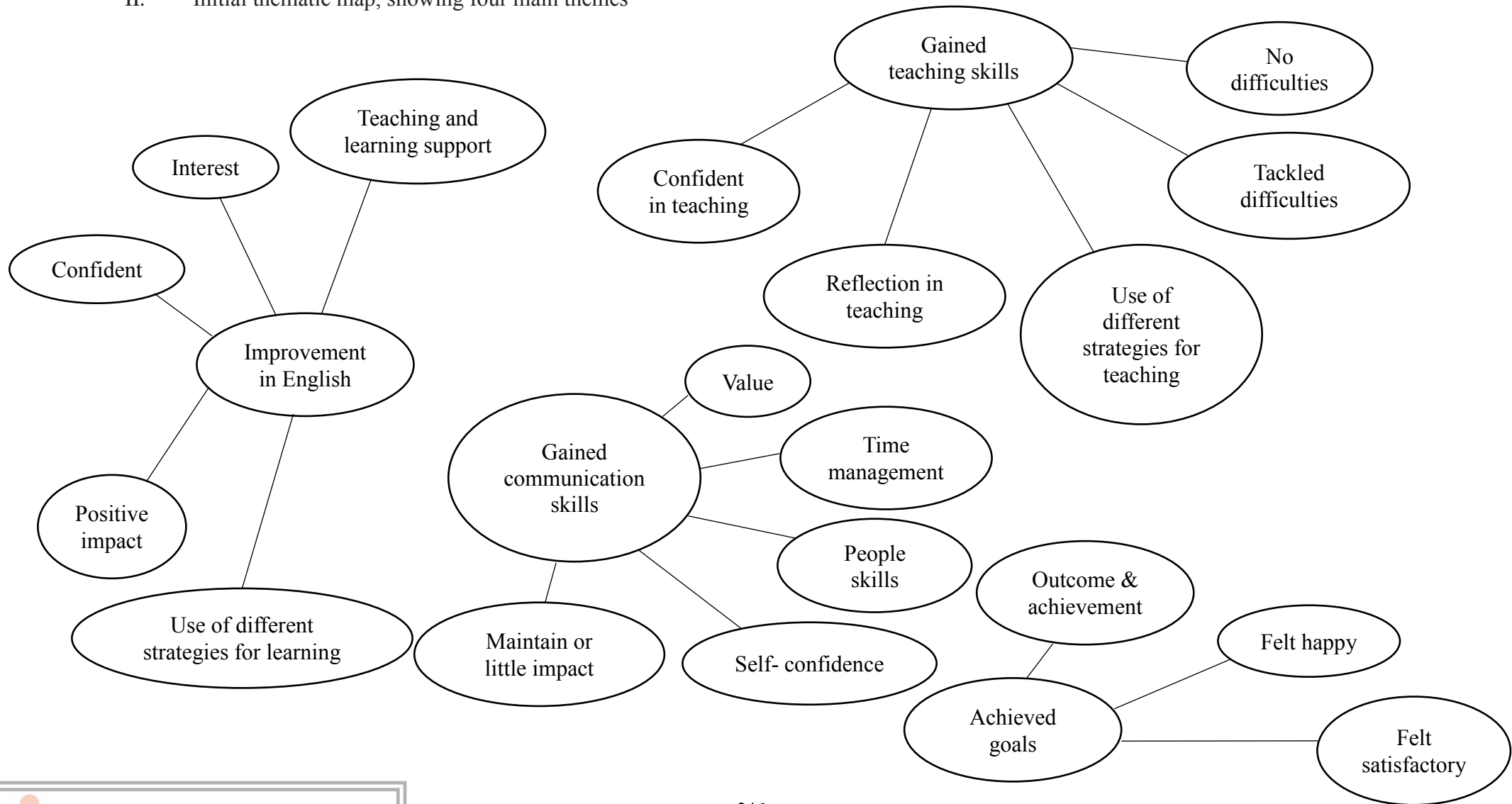
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Appendix G Demonstration of the theme development

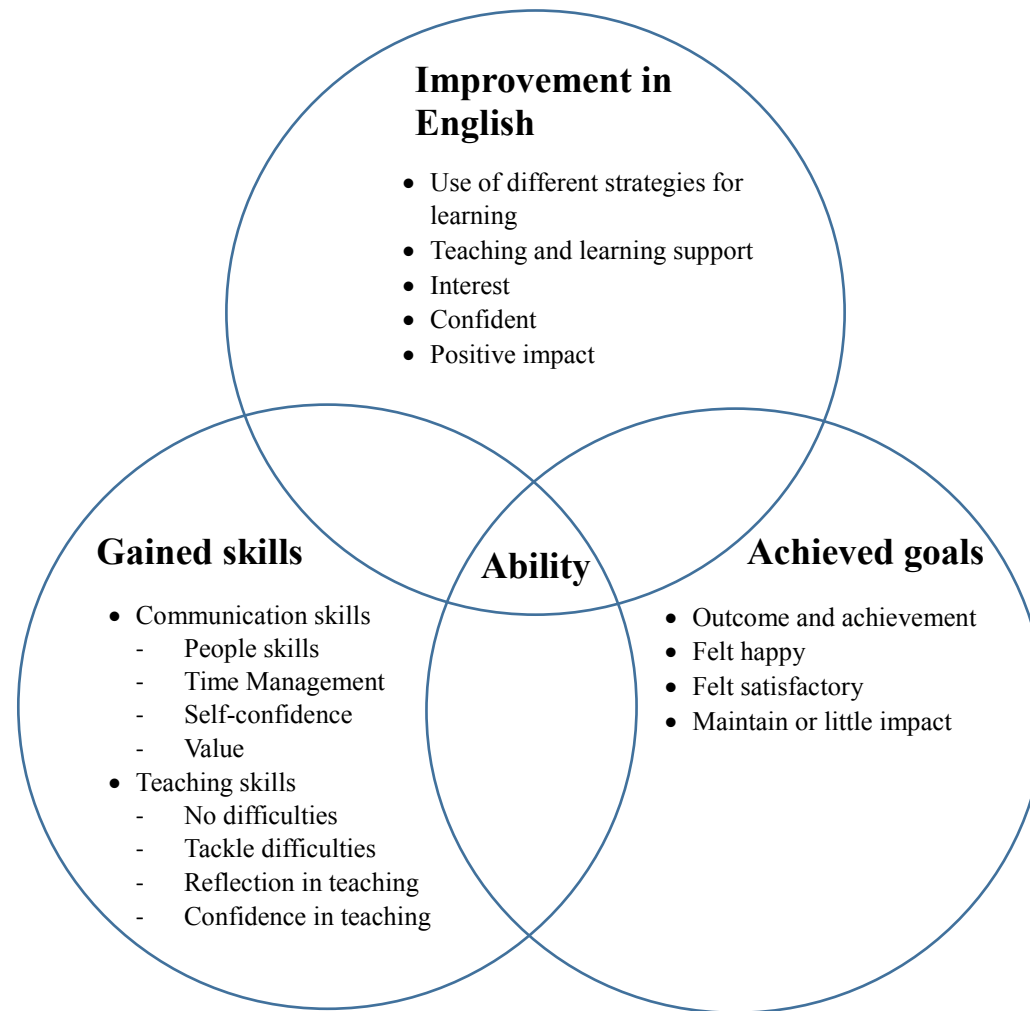
I. Data extract, with codes applied

Data extract	Coded for
In addition to do reflection, I used to spend five minutes to ask for students' feedback of my teaching, choice of teaching materials and design of the lesson after completion of every lesson for evaluation. (S4)	1. Ask student's feedback for evaluation
My confidence has increased after completion of this collaborative learning. Because I can manage to speak fluently in delivery of tutoring classes for forty-five minutes or one hour. (S4)	1. Raising in confidence 2. Managed to use English language as a medium of instruction

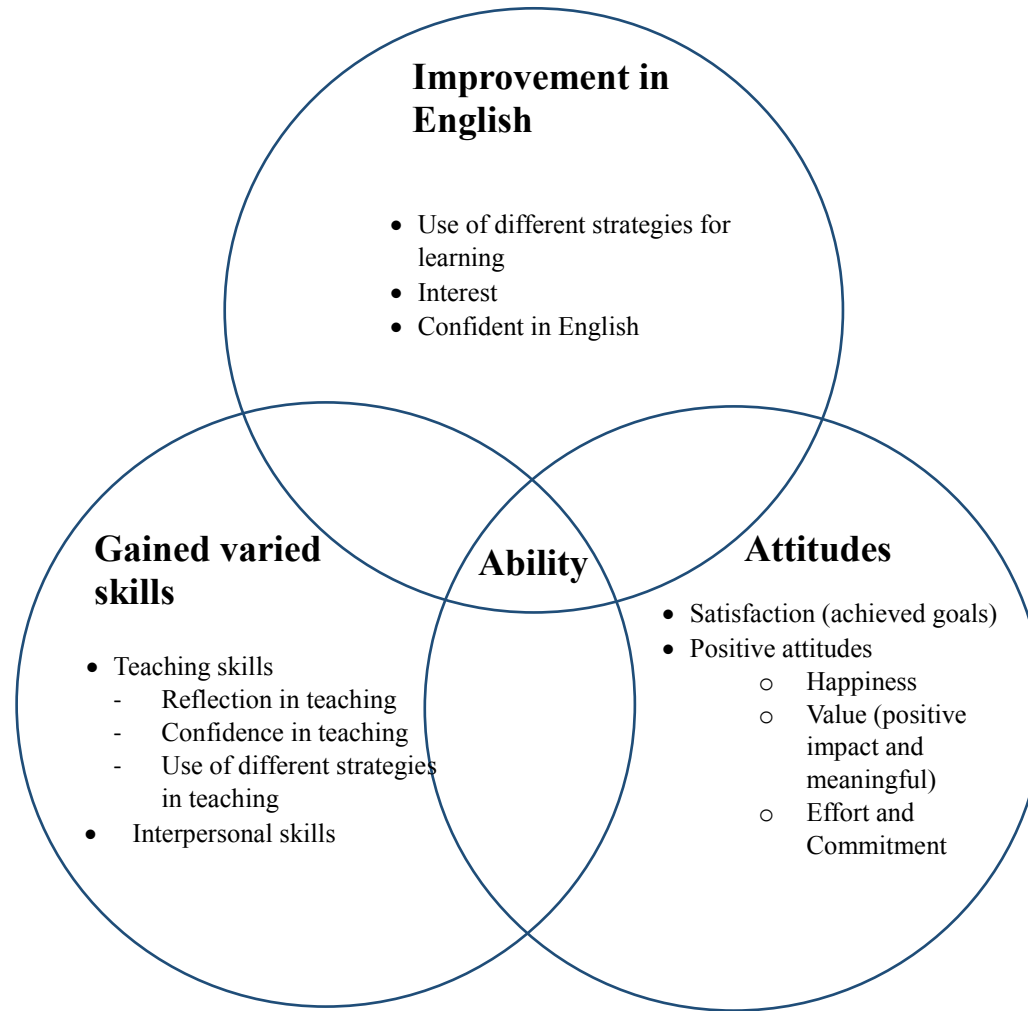
II. Initial thematic map, showing four main themes



III. Developed thematic map, showing three main themes



IV. Final thematic map, showing final three main themes



THE HONG KONG INSTITUTE OF EDUCATION

Course Outline

Part I

Programme Title	:	Bachelor of Health Education (Honours)
Course Title	:	Diet in Health and Disease
Course Code	:	HCS3053
Department	:	Health and Physical Education
Credit Points	:	3
Contact Hours	:	Lecture 14 hours Seminar / tutorial 25 hours
Pre-requisite(s) (If applicable)	:	NIL
Medium of Instruction	:	EMI
Level	:	3

Part II

1. Synopsis

The course aims to examine the dietary patterns of people and its impact on health. This course also identifies the factors affecting food choice behavior, dietary guidelines, nutrition labeling as well as nutrition and health claims. Strategies for eating healthy to prevent common non-communicable disease and dietary supports for people with common health disorders are also covered. The collaborative learning will be selected as a teaching approach for students to work together to co-construct knowledge and apply it throughout the healthy eating project.

2. Course Intended Learning Outcomes (CILOs)

Upon successful completion of this course, students should be able to:

- CILO₁ examine the dietary patterns of people and its impact on health;
- CILO₂ explain the factors affecting food choice behavior;
- CILO₃ identify the dietary guidelines, nutrition labeling as well as nutrition and health claims; and

- CILO4** apply the dietary supports for individuals with common health disorder and strategies for eating healthy to prevent common non-communicable diseases.

3. Content, CILOs and Teaching & Learning Activities

Course Content	CILOs	Suggested Teaching & Learning Activities
1. Dietary pattern of peoples and its impact on health	<i>CILO₁</i>	lectures, collaborative learning project, group discussion, case studies, oral presentation
2. Factors affecting food choice behavior	<i>CILO₂</i>	
3. Dietary guidelines, nutrition labeling as well as nutrition and health claims	<i>CILO₃</i>	
4. Strategies for eating healthy to prevent common non-communicable diseases and Dietary supports for individuals with common health disorder and	<i>CILO₄</i>	

4. Assessment

Assessment Tasks	Weighting (%)	CILO
a. Collaborative learning project (Group project) Each group has to run a collaborative learning project to apply the knowledge of diet in health and disease. Each group has to discuss the contribution of socioeconomic, cultural and psychological factors on food choice behavior in shaping the lifestyle of selected population and recommend dietary supports and preventive strategies for selected peoples with health disorders.	60	<i>CILO_{1,2,3,4}</i>
b. Reflective journal (Individual work: 800 words to 1000 words) Students are required to make reflections on the process and practice of collaborative learning project.	40	<i>CILO_{1,2,3,4}</i>

Your Nickname:

If the statement is more or less true of you, find the number between 1 and 7 that best describes you.

1 2 3 4 5 6 7
Not at all true of me Very true of me

1.	I believe I will receive an excellent grade in this class.	1	2	3	4	5	6	7
2.	I'm certain I can understand the most difficult material presented in the readings for this course.	1	2	3	4	5	6	7
3.	I'm confident I can learn the basic concepts taught in this course.	1	2	3	4	5	6	7
4.	I'm confident I can understand the most complex material presented by the instructor in this course.	1	2	3	4	5	6	7
5.	I'm confident I can do an excellent job on the assignments and tests in this course.	1	2	3	4	5	6	7
6.	I expect to do well in this class.	1	2	3	4	5	6	7
7.	I'm certain I can master the skills being taught in this class.	1	2	3	4	5	6	7
8.	Considering the difficulty of this course, the teacher, and my skills, I think I will do well in this class.	1	2	3	4	5	6	7

Appendix J Social skills inventory (SSI) (Riggio, 1989 and 2002)

Your nickname: _____
Male / Female

For use by Queenie Law only. Received from Mind Garden, Inc. on September 7, 2015

1 = *Not at all like me*
2 = *A little like me*
3 = *Like me*
4 = *Very much like me*
5 = *Exactly like me*

Please ensure that you work from left to right on the answer sheet.

- | | |
|---|---|
| 1. It is difficult for others to know when I am sad or depressed. | 16. I love to socialize. |
| 2. When people are speaking, I spend as much time watching their movements as I do listening to them. | 17. I would much rather take part in a political discussion than to observe and analyze what the participants are saying. |
| 3. People can always tell when I dislike them, no matter how hard I try to hide my feelings. | 18. Sometimes I find it difficult to look at others when I am talking about something personal. |
| 4. I enjoy giving parties. | 19. I have been told that I have expressive eyes. |
| 5. Criticism or scolding rarely makes me feel uncomfortable. | 20. I am interested in knowing what makes people tick. |
| 6. I can be comfortable with all types of people – young and old, rich and poor. | 21. I am not very skilled in controlling my emotions. |
| 7. I talk faster than most people. | 22. I prefer jobs that require working with a large number of people. |
| 8. Few people are as sensitive and understanding as I am. | 23. I am greatly influenced by the moods of those around me. |
| 9. It is often hard for me to keep a "straight face" when telling a joke or humorous story. | 24. I am not good at making prepared speeches. |
| 10. It takes people quite a while to get to know me well. | 25. I usually feel uncomfortable touching other people. |
| 11. My greatest source of pleasure and pain is other people. | 26. I can easily tell what a person's character is by watching his or her interactions with others. |
| 12. When I'm with a group of friends, I am often the spokesperson for the group. | 27. I am able to conceal my true feelings from just about anyone. |
| 13. When depressed, I tend to make those around me depressed also. | 28. I always mingle at parties. |
| 14. At parties, I can immediately tell when someone is interested in me. | 29. There are certain situations in which I find myself worrying about whether I am doing or saying the right things. |
| 15. People can always tell when I am embarrassed by the expression on my face. | 30. I find it very difficult to speak in front of a large group of people. |

For use by Queenie Law only. Received from Mind Garden, Inc. on September 7, 2015

1 = *Not at all like me*
2 = *A little like me*
3 = *Like me*
4 = *Very much like me*
5 = *Exactly like me*

Please ensure that you are working from left to right on the answer sheet.

- | | |
|---|---|
| 31. I often laugh out loud. | 46. When telling a story, I usually use a lot of gestures to help get the point across. |
| 32. I always seem to know what peoples' true feelings are no matter how hard they try to conceal them. | 47. I often worry that people will misinterpret something I have said to them. |
| 33. I can keep a straight face even when friends try to make me laugh or smile. | 48. I am often uncomfortable around people whose social class is different from mine. |
| 34. I usually take the initiative to introduce myself to strangers. | 49. I rarely show my anger. |
| 35. Sometimes I think that I take things other people say to me too personally. | 50. I can instantly spot a "phony" the minute I meet him or her. |
| 36. When in a group of people, I have trouble thinking of the right things to talk about. | 51. I usually adapt my ideas and behavior to the group I happen to be with at the time. |
| 37. Sometimes I have trouble making my friends and family realize just how angry or upset I am with them. | 52. When in discussions, I find myself doing a large share of the talking. |
| 38. I can accurately tell what a person's character is upon first meeting him or her. | 53. While growing up, my parents were always stressing the importance of good manners. |
| 39. It is very hard for me to control my emotions. | 54. I am not very good at mixing at parties. |
| 40. I am usually the one to initiate conversations. | 55. I often touch my friends when talking to them. |
| 41. What others think about my actions is of little or no consequence to me. | 56. I dislike it when other people tell me their problems. |
| 42. I am usually very good at leading group discussions. | 57. While I may be nervous on the inside, I can disguise it very well from others. |
| 43. My facial expression is generally neutral. | 58. At parties I enjoy talking to a lot of different people. |
| 44. One of my greatest pleasures in life is being with other people. | 59. I can be strongly affected by someone smiling or frowning at me. |
| 45. I am very good at maintaining a calm exterior even if I am upset. | 60. I would feel out of place at a party attended by a lot of very important people. |

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 5 = *Exactly like me*

Please ensure that you are working from left to right on the answer sheet.

- | | |
|---|--|
| 61. I am able to liven up a dull party. | 76. I am unlikely to speak to strangers until they speak to me. |
| 62. I sometimes cry at sad movies. | 77. I get nervous if I think someone is watching me. |
| 63. I can make myself look as if I'm having a good time at a social function even if I'm not really enjoying myself at all. | 78. I am often chosen to be the leader of a group. |
| 64. I consider myself a loner. | 79. Friends have sometimes told me that I talk too much. |
| 65. I am very sensitive of criticism | 80. I am often told that I am a sensitive, understanding person. |
| 66. Occasionally I've noticed that people from different backgrounds seem to feel uncomfortable around me. | 81. People can always "read" my feelings even when I'm trying to hide them. |
| 67. I dislike being the center of attention. | 82. I tend to be the "life of the party." |
| 68. I am easily able to give a comforting hug or touch someone who is distressed. | 83. I'm generally concerned about the impression I'm making on others. |
| 69. I am rarely able to hide a strong emotion. | 84. I often find myself in awkward social situations. |
| 70. I enjoy going to large parties and meeting new people. | 85. I never shout or scream when angry. |
| 71. It is very important that other people like me. | 86. When my friends are angry or upset, they seek me out to help calm them down. |
| 72. I sometimes say the wrong thing when starting a conversation with a stranger. | 87. I am easily able to make myself look happy one minute and sad the next. |
| 73. I rarely show my feelings or emotions. | 88. I could talk for hours on just about any subject. |
| 74. I can spend hours just watching other people. | 89. I am often concerned with what others are thinking of me. |
| 75. I can easily pretend to be mad even when I am really feeling happy. | 90. I can easily adjust to being in just about any social situation. |

Appendix K Revised General Nutrition Knowledge Questionnaire (Parmenter & Wardle, 1999)

Your nickname: _____

GENERAL NUTRITION KNOWLEDGE QUESTIONNAIRE

This is a survey, not a test. Your answers will help identify which dietary advice people find confusing. It is important that you complete it by yourself. Your answer will remain anonymous. If you don't know the answer, mark "not sure" rather than guess.

Thank you for your time.

Section 1: The first few items are about what advice you think experts are giving us.

1. Do health experts recommend that people should be eating more, the same amount, or less of the following foods? (tick one box per food)

	More	Same	Less	Not Sure
Fruit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Food and drinks with added sugar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vegetables	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fatty foods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Processed red meat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wholegrains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Salty foods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. How many servings of fruit and vegetables per day do experts advise people to eat as a minimum? (One serving could be, for example, an apple or a handful of chopped carrots) (tick one)

2	<input type="checkbox"/>
3	<input type="checkbox"/>
4	<input type="checkbox"/>
5 or more	<input type="checkbox"/>
Not sure	<input type="checkbox"/>

3. Which of these types of fats do experts recommend that people should eat less of? (tick one box per food)

	Eat less	Not eat less	Not sure
Unsaturated fats	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trans fats	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Saturated fats	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Which types of dairy foods do experts say people should drink? (tick one)

Full fat (e.g. full fat milk)	<input type="checkbox"/>
Reduced fat (e.g. skimmed and semi-skimmed milk)	<input type="checkbox"/>
Mixture of full fat and reduced fat	<input type="checkbox"/>
Neither, dairy foods should be avoided	<input type="checkbox"/>
Not sure	<input type="checkbox"/>

5. How many times per week do experts recommend that people eat oily fish (e.g. salmon and mackerel)? (tick one)

1-2 times per week	<input type="checkbox"/>
3-4 times per week	<input type="checkbox"/>
Every day	<input type="checkbox"/>
Not sure	<input type="checkbox"/>

6. Approximately how many alcoholic drinks is the maximum recommended per day (The exact number depends on the size and strength of the drink)? (tick one)

1 drink each for men and women	<input type="checkbox"/>
2 drinks each for men and women	<input type="checkbox"/>
2 drinks for men and 1 drink for women	<input type="checkbox"/>
3 drinks for men and 2 drinks for women	<input type="checkbox"/>
Not sure	<input type="checkbox"/>

7. How many times per week do experts recommend that people eat breakfast? (tick one)

3 times per week	<input type="checkbox"/>
4 times per week	<input type="checkbox"/>
Every day	<input type="checkbox"/>
Not sure	<input type="checkbox"/>

8. If a person has two glasses of fruit juice in a day, how many of their daily fruit and vegetable servings would this count as? (tick one)

None	<input type="checkbox"/>
One serving	<input type="checkbox"/>
Two servings	<input type="checkbox"/>
Three servings	<input type="checkbox"/>
Not sure	<input type="checkbox"/>

9. According to the 'eatwell plate' (a guideline showing the proportions of food types people should eat to have a balanced and healthy diet), how much of people's diet should be made up of starchy foods? (tick one)

¼ plate	<input type="checkbox"/>
½ plate	<input type="checkbox"/>
¾ plate	<input type="checkbox"/>
Not sure	<input type="checkbox"/>

Section 2: Experts classify foods into groups. We are interested to see whether people are aware of food groups and the nutrients they contain.

1. Do you think these foods and drinks are typically high or low in added sugar? (tick one box per food)

	High in added sugar	Low in added sugar	Not sure
Diet cola drinks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Natural yoghurt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ice cream	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tomato ketchup	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Melon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Do you think these foods are typically high or low in salt? (tick one box per food)

	High in salt	Low in salt	Not Sure
Breakfast cereals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frozen vegetables	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bread	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baked beans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Red meat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Canned soup	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Do you think these foods are typically high or low in fibre? (tick one box per food)

	High in fibre	Low in fibre	Not Sure
Oats	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bananas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
White rice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eggs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Potatoes with skin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pasta	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Do you think these foods are a good source of protein? (tick one box per food)

	Good source of protein	Not a good source of protein	Not sure
Poultry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cheese	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fruit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Baked beans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Butter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nuts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Which of the following foods do experts count as starchy foods? (tick one box per food)

	Starchy food	Not a starchy food	Not sure
Cheese	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pasta	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Potatoes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nuts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plantains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Which is the main type of fat present in each of these foods? (tick one box per food)

	Polyunsaturated fat	Monounsaturated fat	Saturated fat	Cholesterol	Not sure
Olive oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Butter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sunflower oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eggs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Which of these foods has the most trans-fat? (tick one)

Biscuits, cakes and pastries	<input type="checkbox"/>
Fish	<input type="checkbox"/>
Rapeseed oil	<input type="checkbox"/>
Eggs	<input type="checkbox"/>
Not sure	<input type="checkbox"/>

8. The amount of calcium in a glass of whole milk compared to a glass of skimmed milk is: (tick one)

About the same	<input type="checkbox"/>
Much higher	<input type="checkbox"/>
Much lower	<input type="checkbox"/>
Not sure	<input type="checkbox"/>

9. Which one of the following nutrients has the most calories for the same weight of food? (tick one)

Sugar	<input type="checkbox"/>
Starchy	<input type="checkbox"/>
Fibre/roughage	<input type="checkbox"/>
Fat	<input type="checkbox"/>
Not sure	<input type="checkbox"/>

10. Compared to minimally processed foods, processed foods are: (tick one)

Higher in calories	<input type="checkbox"/>
Higher in fibre	<input type="checkbox"/>
Lower in salt	<input type="checkbox"/>
Not sure	<input type="checkbox"/>

Section 3: The next few items are about choosing foods

1. If a person wanted to buy a yogurt at the supermarket, which would have the least sugar/sweetener? (tick one)

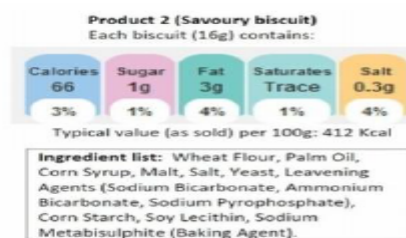
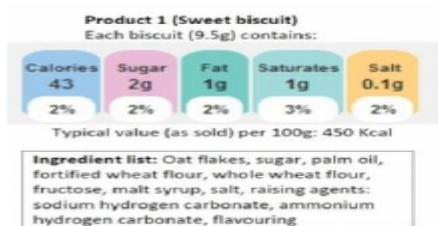
0% fat cherry yogurt	<input type="checkbox"/>
Natural yogurt	<input type="checkbox"/>
Creamy fruit yogurt	<input type="checkbox"/>
Not sure	<input type="checkbox"/>

2. If a person wanted a soup in a restaurant or cafe, which one would be the lowest fat option? (tick one)

Mushroom risotto soup (field mushrooms, porcini mushrooms, arborio rice, butter, cream, parsley and cracked black pepper)	<input type="checkbox"/>
Carrot butternut and spice soup (carrot, butternut squash, sweet potato, cumin, red chillies, coriander seeds and lemon)	<input type="checkbox"/>
Cream of chicken soup (British chicken, onions, carrots, celery, potatoes, garlic, sage, wheat flour, double cream)	<input type="checkbox"/>

- Not sure ☐
3. Which would be the healthiest and most balanced choice for a main meal in a restaurant? (tick one)
- Roast turkey, mashed potatoes and vegetables ☐
- Beef, Yorkshire pudding and roast potatoes ☐
- Fish and chips served with peas and tartar sauce ☐
- Not sure ☐
4. Which would be the healthiest and most balanced sandwich lunch? (tick one)
- Ham sandwich + fruit + blueberry muffin + fruit juice ☐
- Tuna salad sandwich + fruit + low fat yogurt + water ☐
- Egg salad sandwich + crisps + low fat yogurt + water ☐
- Not sure ☐
5. Which of these foods would be the healthiest choice for a pudding? (tick one)
- Berry sorbet ☐
- Apple and blackberry pie ☐
- Lemon cheesecake ☐
- Carrot cake with cream cheese topping ☐
- Not sure ☐
6. Which of these combinations of vegetables in a salad would give the greatest variety of vitamins and antioxidants? (tick one)
- Lettuce, green peppers and cabbage ☐
- Broccoli, carrot and tomatoes ☐
- Red peppers, tomatoes and lettuce ☐
- Not sure ☐
7. If a person wanted to reduce the amount of fat in their diet, but didn't want to give up chips, which of the following foods would be the best choice? (tick one)
- Thick cut chips ☐
- Thin cut chips ☐
- Crinkle cut chips ☐
- Not sure ☐
8. One healthy way to add flavour to food without adding extra fat or salt is to add: (tick one)
- Coconut milk ☐
- Herbs ☐
- Soya sauce ☐
- Not sure ☐
9. Which of the following cooking methods requires fat to be added? (tick one)
- Grilling ☐
- Steaming ☐
- Baking ☐
- Sautéing ☐
- Not sure ☐
10. Traffic lights are often used on nutrition labelling, what would amber mean for the fat content of a food? (tick one)
- Low fat ☐
- Medium fat ☐
- High in fat ☐
- Not sure ☐
11. "Light" foods (or Diet foods) are always good options because they are low in calories. (tick one)
- Agree ☐
- Disagree ☐
- Not sure ☐

The following questions are related to food labels:



12. Looking at the product 1 and 2, which one has the most calories (kcal) per 100 grams (tick one)
- Product 1 ☐
- Product 2 ☐
- Both have the same quantity ☐
- Not sure ☐
13. Looking at the product 1, what are the sources of sugar in the ingredient list? (tick one)
- Sugar and malt syrup ☐
- Sugar, fructose and lecithin ☐
- Sugar, fructose and malt syrup ☐
- Not sure ☐

-
1. Which of the diseases is related to a low intake of fibre? (tick one)
 - Bowel disorders ☐
 - Anaemia ☐
 - Tooth decay ☐
 - Not sure ☐
 2. Which of these diseases is related to how much sugar people eat? (tick one)
 - High blood pressure ☐
 - Tooth decay ☐
 - Anaemia ☐
 - Not sure ☐
 3. Which of the diseases is related to how much salt (or sodium) people eat? (tick one)
 - Hypothyroidism ☐
 - Diabetes ☐
 - High blood pressure ☐
 - Not sure ☐
 4. Which of these options do experts recommend to reduce the chances of getting cancer? (tick one)
 - Drinking alcohol regularly ☐
 - Eating less red meat ☐
 - Avoiding additives in food ☐
 - Not sure ☐
 5. Which of these options do experts recommend to prevent heart disease? (tick one)
 - Taking nutritional supplements ☐
 - Eating less oily fish ☐
 - Eating less trans-fats ☐
 - Not sure ☐
 6. Which of these options do experts recommend to prevent diabetes? (tick one)
 - Eating less refined foods ☐
 - Drinking more fruit juice ☐
 - Eating more processed meat ☐
 - Not sure ☐
 7. Which one of these foods is more likely to raise people's blood cholesterol? (tick one)
 - Eggs ☐
 - Vegetable oils ☐
 - Animal fat ☐
 - Not sure ☐
 8. Which one of these foods is classified as having a high Glycaemic Index (Glycaemic Index is a

| 8

- measure of the impact of a food on blood sugar levels, thus a high Glycaemic Index means a greater rise in blood sugar after eating)? (tick one)
- Wholegrain cereals ☐
 - white bread ☐
 - Fruit and vegetables ☐
 - Not sure ☐
9. To maintain a healthy weight people should cut fat out completely. (tick one)
 - Agree ☐
 - Disagree ☐
 - Not sure ☐
 10. To maintain a healthy weight people should eat a high protein diet. (tick one)
 - Agree ☐
 - Disagree ☐
 - Not sure ☐
 11. Eating bread always causes weight gain. (tick one)
 - Agree ☐
 - Disagree ☐
 - Not Sure ☐
 12. Fibre can decrease the chances of gaining weight. (tick one)
 - Agree ☐
 - Disagree ☐
 - Not sure ☐

13. What of these options can help people to maintain a healthy weight? (answer each one)

	Yes	No	Not sure
Not eating while watching TV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reading food labels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Taking nutritional supplements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monitoring their eating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monitoring their weight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grazing throughout the day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14. If someone has a Body Mass Index (BMI) of 23kg/m^2 , what would their weight status be? (tick one)

- Underweight ☐
 Normal weight ☐
 Overweight ☐
 Obese ☐
 Not sure ☐

15. If someone has a Body Mass Index (BMI) of 31kg/m^2 , what would their weight status be? (tick one)

- Underweight ☐
 Normal weight ☐
 Overweight ☐
 Obese ☐
 Not sure ☐

Look at the body shape below:



16. Which of these body shapes increases the risk of cardiovascular disease (Cardiovascular disease is a general term that describes a disease of the heart or blood vessels, for example, angina, heart attack, heart failure, congenital heart disease and stroke)? (tick one)

- Apple shape ☐
 Pear shape ☐
 Not sure ☐

| 9

Teaching and Learning Record

Lesson plan

***Required**

Subject No *

School tutoring at *

dd/mm/yyyy

Continue »

Teaching plan

What do you teach?

What objectives are you trying to achieve? *

1st Topic, outline what activities, exercises and/or teaching aids you will be using this lesson *

Time allocation (in minute) *

Appendix M Students' learning goals



Personal Learning Goals

***Required**

Subject No. *

Goal 1 (please type here) *

Timeline (1st) *

Define a timeline for your strategy. When do you plan to start, assess and finish the process?

Measures to know if the goal is accomplished (1st) *

How will you know that you've reached your goal? What will you measure and how will you measure it?

Learning activities/strategies to accomplish the goal (1st) *

What will you do? Aim to define two specific and measurable strategies

Resources to help accomplish your goal (1st): *

What resources do you have or need to achieve your goal?

Consider factors that may affect the likelihood of your success

How important is it for you to achieve your goal? *

1 2 3 4 5 6 7 8 9 10
least important ● ● ● ● ● ● ● ● ● ● most important

How confident are you that you can achieve your goal (or make reasonable progress towards your goal)? *

1 2 3 4 5 6 7 8 9 10
least confident ● ● ● ● ● ● ● ● ● ● most confident

Teaching reflection

Your reflection

***Required**

Subject No *

Total preparation time for this lesson (in minute) *

School tutoring at *

Lesson reflection *

Please write few sentences about your lesson reflection. Include whether your objectives were/were not achieved and why, as well, what worked and what did not.

Please rate your performance after each lesson (from 1 to 10) *

1 2 3 4 5 6 7 8 9 10

Lowest ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Highest

Appendix O Sample translated transcript

Q: Okay, so I guess I don't need to introduce myself. I am Q, and this is V besides me; he will also raise question in this Focus Group as a researcher. First of all, thank you for your participation. The purpose of this Focus Group is similar to the questionnaire we've filled before. It is related to your participation in the community service project, where you deliver English language tutorials to a number of secondary school students. It is about the self-efficacy in English for students of Hong Kong Institute of Education, which we call Self-Efficacy, and to investigate your engagement in learning. Information and context of this interview will be kept confidential, and no personal opinions will be disclosed. All relevant information will be used for research purposes. We will now start the audio recording of this Focus Group, but you hold the right to interrupt and terminate such action anytime. You also have the right to refuse to answer any of the questions, and this will not have negative impacts on you, meaning that no academic activity at your institution will be affected.

So first of all, I would like to enquire about this community service experience. My first question, is what do you think about this community service program? This is a very general question. Please feel free to answer.

B: I will answer first. (Q:Okay!) I am B. I think this is a rare opportunity; it really gives me the opportunity to interact with secondary school students, through more than 10 tutorials; to conduct academic investigations with them as a teacher, while raising my confidence in my English language skills.

Q: Okay, does anyone have any other opinions?

A:I think this project is very meaningful; you don't only teach secondary school students, but also to improve your English language skills. You have to prepare beforehand and to be willing to talk in order to make your students follow, thus, improvements in both areas.

Q: How about the others?

D: I think I certainly possess the knowledge I teach them, but I just don't know how to deliver it to them. It may be difficult at first, but after searching for things that I have learnt before and coming up with a method to teach them, like the steps, such as teaching them to raise an example first or to raise their interest first, will facilitate their learning. I think I have a grasp of this method, and I see this as something I have gained.

Q: How about C? Any opinions?

C: I don't know if it's because of this program or not, my English skills improved. But I think this will help my internship in the future, as I become less anxious when facing students. The first tutorial I was worried; I didn't know what to say and I was worried that they might be afraid of me; but after these tutorials everyone seems to have found a way to interact; I don't scold them, and I teach them as if we are friends. I hope that they would also gain from this program.

E: I didn't have any experience in teaching, and therefore this experience, although it is difficult, it is very valuable. It is beneficial to both our students and us. When I prepare for lessons I would think of ways to raise their interests. I would also work on my English foundations during then.

Q: Good. Anything else to add? Why don't I ask you a question? A further question. You said you had no experience in teaching before. Is that true? For all of you?

B: I had experience in teaching, but not formally teaching a class. We delivered tutorials to individual primary students. And have taught martial arts, but not as a formal class.

Q: So only you have gave tutorials before, but not the others?

D: I have had experience before as well (Q: experience in tutoring...), one-on-one tutoring, but not three people, like a class. At this school I have to stand in front of the blackboard and give them a lecture; stop a while and let them think, and then ask them whether they have understood, just like a proper class (Q: you haven't tried that before?) No, I haven't.

Q: That means your previous experience involved one-on-one tutorial. Maybe F doesn't have experience in tutoring? Okay, both of you haven't. But you three have.

F: I have tried group tutorials, but not with students at such high forms. Some of them are even older than me, and some of them are of similar age, with one of them being 18 turning 19. I am slightly scared (Q: Because they are older...) because they are older than me. I'm scared that they'll say that I am... I don't know... but it is going well, after so many lessons.

Q: Okay, good. I will now move onto the second question. About participation in this community service program. What effect do you think this program has on your grasp of English?

B: I have to do revision on junior high school materials. It may be that I have forgotten much of the things I've learnt, like some commonly used sentence structures and tenses that I don't use on a daily basis. Now that I have revisited these materials, I would think: "Oh? Maybe I can try to use that, maybe when I try to teach them how to make a sentence richer while composing sentence structures, to make them longer and more detailed. That is actually useful for myself too.

Q: How about the others?

D: Sometimes when I teach them a topic, I would tell them what mistakes people usually make, and in that case, I will have to find out on purpose what mistakes people usually make and then tell my students; I would also try to avoid them myself.

A: I think it would also improve my familiarity with certain English words, because sometimes you see words that are not very familiar, and you cannot remember their meanings. But when delivering tutoring in this subject sometimes I would use a certain word repeatedly, and that would definitely make me more familiar with those words.

C: I think I cannot tell what has improved practically. But I do gain more interest in English. I used to be scared of the English language, and I had bad grades, I wouldn't have the initiative to read an English book, won't search for information on the Internet; but now I'm slightly forced, to teach them. I will take the initiative to gather information from libraries, and watch movies in English, and listen to English songs. Now I like English more than ever, but I cannot tell if anything has improved practically.

F: I used to be confused with grammar and tenses, and I just stayed half-baked. But when I have to teach others, I try to find ways to make it clearer for myself, especially for grammar. I know more vocabularies now. But for me, I am weak at English speaking; but as I speak Cantonese more in class, there has not been much advancement.

Q: There are several aspects of English language, written, oral. Which areas do you think the program improves? Or, like F has said, it does not help her speaking. How about the others? Which areas do you think it helps you with?

B: Writing (Q: Yes, can you give us some examples?), because we have to teach them grammar, for example they're being tested on passive voice in their exams, those usage of sentence structures, so in terms of writing.

Q: So you think in terms of writing, this program is best for writing.

B: There really isn't much about speaking. Not because I don't want to speak in English. They just don't want to listen.

Q: So if you teach in English, they are unable to absorb what you are trying to deliver. And so you've used Cantonese as a supplement to cater their English levels. Okay, how about the others?

A: I think speaking. Sometimes after asking them questions in English, if they didn't understand I would translate them into Cantonese, yet they were still unwilling to take the initiative to answer them. Towards the end, they had shown some initiatives in that.

Q: So they answered you in English.

A: Yes.

Q: That's very good! So you would ask them the questions in English, and in case they don't understand, you would translate them into Cantonese, and now they're willing to answer you in English. Excellent. Which grade are your students from? (A: form 2) Form 2 students. (A: Lower grades). Okay. How about the others?

D: Do you mean how this program has had an impact...

Q: Yes, in terms of English reading, writing and speaking. Do you think there's any? It's alright if there isn't.

D: I think reading and writing, because I have to read a lot of books when I prepare tutorials. I would also watch and select clips of movies, and decide which scene is worth discussing about. That is good for my listening. In terms of writing, I have taught them a lot of grammar, and so I have become more aware of grammatical mistakes myself, which was an improvement.

Q: How about C? Are you unsure or...?

C: I don't know, but certainly not speaking, because my students rarely speak Cantonese. They would either talk in Mandarin or English, because they wouldn't understand what I was saying, and vice versa. They have an accent.

Q: So they're willing to speak in English, but they have a foreign accent and so...

C: Sometimes I don't understand what they're talking about and so I would become terrified and speak to them in English. That's why I don't know if I should speak to them in Mandarin or in English. They wouldn't understand if I spoke Mandarin, so that's rather annoying...

Q: So what did you do in the end?

C: I would speak both, meaning that if they don't understand when I speak in Mandarin I would switch to English. But for me I want to use Cantonese, because I would feel very nervous if I were to speak English with them.

Q: But do they understand?

C: Yes, But don't know how to express in English.

Q: So not fluent. But they do speak to you in English.

C: Yes, but they would use Mandarin.

Q: So they would use Mandarin amongst themselves, but would speak to you in English. Okay, F do you have anything to add regarding this?

F: For myself.

Q: Yes, for yourself. You've mentioned that it might not help your speaking skills. So do you feel it doesn't help with anything else? Or does it?

F: Sort of. I would provide them with articles to read from time to time, and they'll have to read it at least once. So it helps with wording and structuring of articles.

Q: Good. So I'll move on to question 3. What do you think about the workshop? The 3 workshops?

B: I think they are helpful. Although not much detail can be taught as there are only 3 sessions, our instructor provided us with an insight into how a teacher should present his image? I could learn how to be confident, he showed it through obviously. Then I would try to imitate him when I teach. He often asked us about how we intended to teach. I would tell him and he would provide me with useful and practical suggestions. For example, I was teaching my students how to read the past tense and past participle forms of words, and he said that is too stiff and I shouldn't teach like that; that it would be hard for them to memorize. So he suggested me to give more examples of how those words can be used, and only then would my students understand and be able to apply. So I tried that, and I could see better results. For example I

would look back at certain exercises, and say: “I’ve taught you this word before. Do you still remember? Then they would answer: “Yes, I think I do”. Sometimes they are able to answer, and sometimes... I don’t know if they actually remember, but at least they have responded. So I think his suggestions are useful. If I carried on using my way to teach, they would definitely feel bored and think that it’s impossible to remember. I think.

Q: How about the others? What do you think? This time I am asking about Workshop, English Workshop. Those three sessions we provided, which were taught by L.

A: They are quite useful, because we had a chance to hear how the students are taught. Wrong methods then can be avoided. For example, don't play the entire movie; you can just select a section. Some mistakes can be avoided.

D: I also think that it is good to gather a class for that. He would be an outsider, when we would think about our points in our own minds and we unconsciously constrain ourselves. For example, when I was teaching past perfect tenses, I didn't know how to teach. He suggested me to use a timeline, and it instantly became clear to me. I had a class that afternoon, and I pointed at where past tense lies on the timeline and they understood much clearer instantly. I felt that that lesson was a success and I was confident. When they didn't understand what I was teaching in the first tutorial, I felt a blow at my ego. I would think that I had done something wrong. Now that they understand, I feel much better.

C: I think it was useful too. But what was different was that I felt even more nervous after the sessions. That is because he appeared to me as a model English teacher, and I am far from that. People would expect an English teacher to be like him, but I am not, that makes me extremely nervous. I would wonder if we could do better in lessons. But I think the workshop was very useful, at least for me. (Q: In what ways?) For example in the last session, he inspected others’ tutorials and suggested them not to stand outside teaching; that they should shorten the distance and not only talk to 3 to 4 students. I think that was useful to me.

D: I would give my students exercise in my lessons. I could ask them to complete the entire piece themselves and hand them in for me to check, but now I would ask them to do the exercises part by part, and I would discuss the answers with them question by question, and ask the students who got it right and who got it wrong. And then I would tell them why that was wrong.

Q: So you reflected to the instructor of such issue and he gave you advice. You have covered some of the thing I want to ask for question 4. My forth question is how can the English instructor improve you English ability? What impact? You have mentioned a bit earlier. Is there anything you would like to add? Or perhaps you can tidy up the ideas of how an English instructor can help you improve your English. Or you can tell us which area of training we are lacking, that we can help you through lessons again?

D: I think it is good that he insisted to use English to lead the discussion, even though he understands Chinese. That means that everyone was forced to speak in English, and it became more like an intellectual exchange. After that everyone became more confident and contented. I think that’s quite good.

Q: So the method the instructor uses is to speak to you in English whenever he sees you. And you think that’s good.

D: Yes, He said: “It’s alright, if you think English is not clear enough you can speak in Chinese. But he would reply in English. I think he is very tolerant, because I am not very fluent.

Q: Okay, how about the others?

B: Although he asked us to use Chinese, we didn't; we tried to use English as much as possible. I felt confident at his classes; as I have mentioned before, he insisted in speaking English, and he was very fluent. So I thought: “Oh? I know what he’s talking about. I understand 90% of what he’s saying. That's impressive!” Of course I wouldn’t know if he had dumbbed down his English level to teach us, but I realized I could understand him; I could understand all,

fundamentally. And then when I spoke, I spoke very fluently. I felt that I was fluent. I felt good about myself. It really gave me confidence, because after I spoke, I felt that there were things that I shouldn't have said, like grammatical mistakes. But he would laugh it off, and that gave me confidence.

Q: How about the others? What do you think?

A: The advice was very to-the-point, meaning he would formulate a suggestion according to your specific issue. The advice was not over general; he really would give us advice.

Q: F, do you have anything to add?

F: As we had to speak in English, I was nervous at every workshop; but I think that's quite good, at least there's a chance for me to give it a try.

Q: So you would feel nervous before the workshop, because you knew that you will be forced to speak in English. But how about during the workshop?

F: Slightly more relaxed.

Q: Or is there anything that C would like to add? Nothing. Then I will add in another question. If we are to hold similar workshops in the future, what kind of training do you want us to deliver to facilitate your teaching?

A: To talk more about things that we need to teach. Sometimes I wouldn't know what to do, and I could only search the Internet, but I am unsure whether materials on the Internet are reliable.

Q: So you mean English foundations? Like foundations in grammar.

B: Yes, that's what I feel as well. (Q: you think that would be useful?) It would be nice to talk briefly about that, even not detailed. And you can talk about the scope of their exams, like how they're examined in secondary schools. The last time I had a class with my students, they pointed out what their exams would cover, from the grammar book, but then they started arguing about the scope. I thought, how could they not know? How can I teach them then? As I really want to help them with their exams, I want to know the scope of their exams and focus on those areas. There are only 12 sessions and I want to be able to help them in these 12 sessions. Therefore can we focus on teaching what the examinations would cover?

Q: So what their exams would cover from their lessons. What are they teaching? What books are being used? So have they shown you? What they've been learning from their textbooks?

B: Yes, I asked my students if their English is poor, how do they normally do with their English lessons at school. They said they would sleep the whole way. If that really is the case, I think I should give them a revision lesson. Teaching in Chinese is better, because they might not even know what passive voice is. I have to start from the beginning.

Q: Okay, so they have stated that they sleep in class because they don't understand. Do these students possess learning initiatives?

B: Yes, some of them.

Q: So some are not well-initiated. Do they sleep in other classes as well?

B: That I didn't ask them.

Q: You didn't ask them. Okay, how about the others?

F: I think he should teach us more on how to teach others. In the first lesson, he said we need to forecast unexpected situations, for example what questions will a student raise? You should first think about how you could answer. I went home wondering, but I couldn't figure it out. He didn't tell us how to do it. I think he can tell us next time, meaning that he can find one or two examples to better explain, so that I can come up with ways to deal with them.

Q: So what you meant was how to deal with students (F: Yes.), and to give you some examples. That would be able to help you. What do you guys think?

C: I want him to teach us how to make students learn better, like what special skills are there; to let me become more familiar with that.

Q: Any ways to make them memorize or learn better. These methods can facilitate your teaching. Okay, so that's about the English workshop. Anything to add? Okay, I will change the topic to preparation. How do you prepare your tutorials?

B: At the beginning, I would search for form 3 books in the library, because my students are from form 3. I would find all the questions and copy them for references. But after the first class, I realized that they don't reach the form-3 English level, and all the worksheets I prepared were wasted. They took me a long time to prepare.

Q: So their English level is lower than your expected form-3 level.

B: I think they are around primary-school English levels. I knew that their English level was low, and I integrated some primary-school questions into the exercises once. I didn't know how to do it; they didn't even understand 'what', 'who' etc. I was quite shocked. How can they not know this at form 3? What did they learn in class?

Q: So you've experienced, you said that was at the beginning. So what about after that?

B: Then I became clear of their issues; they don't know words; they lack knowledge in vocabulary. That's why I taught them more vocabularies.

Q: So you've identified that they lack vocabularies.

B: Yes, because I've asked them whether they know how to do the exams; they said they couldn't do it because they don't even understand the questions. That means they have so little knowledge of vocabularies that they don't even know what was being asked. Well then, they said they only copy the questions onto the answer sheets. So I tried to show them the verb table more often, and told them it is impossible for them to catch up with the form-3-level immediately. I told them that they'd have to improve step by step; at least they'd need to understand the questions first. So what I had prepared was completely wasted

Q: What about now? After you understand the issue, you focused on vocabulary. Where did you find the materials?

B: On the back of primary-school textbooks, because they don't even know the words they were supposed to learn in primary school.

Q: So you were mainly looking at textbooks. Yes, Okay. How do the others prepare?

A: I would also find exercises for them to do. For the first few lessons, if I wanted to teach them tenses, I would find relevant exercise for them to do, but the atmosphere was boring. I then heard from the workshop the advice to play movies and videos in class, and so I tried to find videos to share with them. TO practice speaking and sharing. The atmosphere was much better. (Q: that's good to hear.) They actually prefer speaking than doing grammar drills. So now through online songs or clips of videos...

Q: So you prepared that and you think the results were outstanding.

A: Yes, better than doing exercises.

Q: But each session lasts one and a half hours. Do you think videos clips of a few minutes is enough? For the whole lesson.

A: No, there are several clippings.

Q: Several video clippings and some songs that you've mentioned before. Okay, how about F?

F: Um, I faced a similar situation where some of them don't possess a very good level of English. So for the first one to three lessons I prepared some exercises and articles for them, and they thought that they were hard, and didn't know how to do it; there were unfamiliar words in every question. They think that the articles were too long, and the words were very difficult, so I found some that suited their levels. They would lean on the table when they do the exercises. That means that they were bored, so I would think of other ways, for example, to produce some sentence-matching exercises and play video, and like the drawing exercise that I have mentioned to you before.

Q: Why don't you talk more about the drawing exercise; others might not be aware of it.

F: Some teachers have done it before at EdUHK, and that is to give one student a picture; he has to describe it to another student, and that student has to draw it out.

Q: So you've tried this exercise? How were their reactions? Do they accept this game?

F: It was okay. They were very shy. They were scared that they would describe them wrong, but at least they tried.

Q: Yes? That's very good! How about C?

C: My situation was different to (B). My students are from form four and I looked up one or two reading pieces; one was from form 3 and the other from form 4, and then they did it and said: "Miss, this is so easy". They have rich vocabularies. When I prepared for lessons, I would read the articles and think of possible words that they wouldn't understand. So I highlighted some words and looked them up. They know a lot of words, they really do. Maybe I don't know much, most of the time they would be able to explain the meanings when I had to look them up. I admire them for that. Then I would look for HKCEE exercise reading at the library, which is form 5 materials, and they said those are alright. I gave them some exercises on that and they were able to do them. So I think their English level is quite...

Q: So they were able to do form 5 exercises?

C: I mean, they didn't get a very high mark or get them all correct, but they would understand the passages. They would be able to guess the meanings of words they don't know.

Q: That's quite clever!

C: I think they are very clever!

Q: Do you give them anything else other than exercises? So you mainly prepare exercises. Anything else?

C: Although they are willing to speak English, sometimes they would get the tenses wrong, and this is what I am focusing on right now. I asked them whether they know which tense to use, they were able to talk about it but they didn't quite understand how to use them. They would mix them up. So I am teaching some basic material right now; they know a lot of vocabulary, so I won't teach them more; that would be tiring for me. So I would teach some basic things, maybe things that they've learnt before but don't quite remember, then I would be able to teach them and I wouldn't need to spend too much time on preparation.

Q: That's good! So I've asked you how you prepared; have you ever encountered any difficulties during preparation?

A: I think so, Yes. Because the amount to be prepared is huge, tenses and grammar. I wouldn't be able to decide what to teach sometimes. Sometimes I jump from one to another; teaching them tenses for a day, and teaching something else on another day. It wasn't very organized.

Q: So you think it's hard to make the materials being taught at different sessions coherent. Anyone else hold a similar view?

D: I didn't know what they knew before I started teaching them, and so after several sessions, I said why don't you write me something? It was then I realized that they had problem with simple tenses. They also thought passive voice was the same as past tense. I could only plan what to teach after reading their writings. But sometime I still don't know which order to put them in, to make the materials more organized, or to progress in terms of difficulties.

Q: Anyone else encountered any issues other than coherency?

B: I have just mentioned that they don't know many vocabularies, then I would find some verb tables for their reference. I know this way of teaching is boring, but I knew clearly that that was the way to help them. But they were so bored that I had to play movies in between, but they wouldn't understand those movies as well. I had to choose a lot of movies; I had to watch a lot of them and pick ones where English was spoken clearly—there was one which was difficult to figure out what they were saying—but I think it's best to play cartoons, because the English used in cartoons is usually clear and simple. But I fear that they would feel that cartoons are too naive. So I would play some in the end. But only few movies really...

Q: ...can suit their levels. How about C? Any difficulties?

C: At first I would search for information online, and the passages I find may have been written by a secondary school student and I didn't know if it was a perfectly written one, and so I had problem selecting materials for my students, because I might not be able to spot mistakes from those passages. I was worried that I would teach them incorrect materials. That's why I thought it was difficult to find teaching materials. If you only give them exercises found from library that would be very boring. I want to find more interesting passages but I didn't know if the ones online are correctly written. I think the search of teaching materials is quite troublesome.

Q: Difficulties in searching materials. How about the others?

F: They always want to watch movies.

Q: Always want to watch movies.

F: I also thought about the subtitles. They wouldn't understand if the subtitles are all English, but if there was a combination of both Chinese and English, they would definitely look at Chinese.

Q: So about the subtitles...

D: I played a movie in English last time, and after twenty minutes, one student started reading the magazine that he brought to class, and another was looking aside. And I thought, is it really that boring? I thought it was interesting and suitable for them. I asked whether I should switch to Chinese after a while, if they didn't understand; I wrote down lines which I thought were useful, so they could learn from that. After the third session, when I played movies, they automatically chose Chinese subtitles.

Q: Used Chinese subtitles...

D: Yes if English subtitles, they wouldn't be interested, they would fall asleep immediately, that was what they said.

B: At last I showed them movies with Chinese subtitles. They seemed to concentrate well. One of the students, I have 3 students, he was most enthusiastic about learning, and after watching the movie with Chinese subtitles, he asked me how to pronounce a specific word. Which word corresponds to which part of the subtitles? For example, "sister", where is it? Then I taught him. I think they learnt better with Chinese subtitles.

Q: So they still had the initiative to ask you some English questions.

B: And I saw that they would follow and read out the words. I was surprised, that was really nice. They followed, their learning interest was enhanced because of the movie, The Mummy.

C: When I watch movies with Chinese subtitles, I am happier. So I asked my students: would you like Chinese subtitles? But they asked me back: why not English? It is English lesson. So I said ok. And after 10-something minutes I asked them: Do you understand? And they said ok, they really got the humor of the movie. I guess they did understand the movie. So it is me who was hopeless. I prefer Chinese.

Q: How about others? Any other difficulties in preparation?

A: Did you show the whole movie?

D: Ye but I separated to two clippings.

B: For sure.

D: One movie would occupy the whole lesson.

Q: So you showed the movie sessions by sessions. You mentioned that you had difficulties in organizing the tutorials cohesively and there were problems in searching teaching materials and movies. How did you solve these problems?

B: Watch more movies. I don't have many movies at home and I won't download movies online. So I have to select from the VCDs and even tapes at home.

Q: So you try to solve the problem by yourself.

A: I found movies from library.

D: Going to EdUHK on purpose

B: Yes

Q: What else besides this? Besides selecting teaching materials during preparation?

B: Teaching materials, and I think exercises. I had to teach them their exam scopes but the exercises I found were of secondary school level. And they couldn't understand, they didn't understand what I was talking about. It was really difficult to teach. It was difficult to find exercises that suit their level.

Q: Selecting exercises, so once you identified this problem, how did you solve this?

B: I made up my own exercises instead of searching for existing ones.

Q: So you designed your own materials.

B: But the problem is, I can't make up a lot of exercises. I fear I make mistakes, even with simple drills, there are chances for errors.

Q: What about others?

A: The time constraint, I had to teach on Monday and Wednesday. Once I finished Monday, Wednesday came, so tight.

Q: How to solve the time management problem?

A: Tried to do the preparation one week ahead.

Q: So better time management, better planning. Fion? What problems did you face and how you tackled?

F: There were some weak students but there was one good student, with better results and more proactive. The remaining two were weaker in both aspects. So I had to take better care of them and asked them more questions.

Q: You solved the time arrangement issue by giving the weaker ones more attention. OK did I ask you how you prepare?

D: No I don't think so.

Q: Please supplement.

D: How to prepare teaching materials? (Q: Yes.) I searched online, I read, I have a grammar book. I selected from it. When I need relevant knowledge, like how to organize, depending on what they didn't understand. At the beginning the lessons were rather loose, teaching some reading skills. But later discovering their writing problems, I started to think that teaching tenses might be better. So the fourth, fifth, sixth lessons were tenses. At last, the tenth class, I found that their pronunciation were not accurate. So I taught them pronunciation for two lessons, though they seemed uninterested. I don't know why they liked writing a lot, as if they enjoyed being tortured. They preferred applying the grammar they learnt to write. But pronunciation they are not interested. That's alright. I taught them passive voice and also some vocabularies when they figured they didn't understand. Remember how to pronounce "magic key"? The vowel is longer. So I taught them speaking and grammar, something like that.

B: I'd like to add a few words. Although I had mentioned that the English language level among those three in my class vary greatly, one of the students reaches secondary-school's level of English. So when I assigned exercises, because their levels were so different, I had to assign secondary school materials to the capable student, and my self-made exercises to the others.

Q: That means you might had to prepare two sets of exercises...

E: Yes, the time I spent on preparation had to...

Q: Had to double.

B: That's right.

D: Oh, and also sometimes after teaching certain materials, it's not like they didn't understand; they understood at that time, but when they were asked to use them in practice, they have already forgotten. Don't know if they had put in efforts in the classroom, or back at home, to remember the materials. I'm slightly irritated; don't know how to maintain their levels. Don't

know how to make them remember even when they've returned home. They are very self-disciplined; if you give them exercises, they would hand in the work. But at the end when they're asked to write essays which utilizes the knowledge that they've learnt, sometimes they make even the simplest mistakes. Too careless I think.

Q: But you haven't specifically talked about how to solve that problem?

D: The challenge is to make them remember materials from the previous session when they come to the next class, and be familiar with usages in the end. I felt that I am unable to maintain their levels, and so the solution I used was every time when they've completed their essays, I would check if the three of them made any mistakes, and then I would gather the findings perhaps say: "Most of you have got this wrong", "have you forgotten what I said last time?", "That is not how to end a sentence, you cannot put a full stop after 'because'. It doesn't exist". That's what I told them.

Q: Good. We have reached halfway. Do you mind commenting on your own tutorials? Comment on yourselves as well, and what are the results do you think? Do you understand my question?

B: Useless. Haha.

Q: That means what comments would you give to your tutorials, and are they effective, do you think?

V: Or do you have any ways to assess what they have learnt? Can you see any results? Things like that.

B: If I was to talk about results I would say I am really disappointed. It may be because I'm still teaching; I've only taught half of the syllabus, but I feel that they are starting to be less interested. Less engaged than I imagined they would have been. They don't want to come to class everyday. I asked them whether they have signed up to the program themselves, and one said: "yes, I joined myself", and the other two said they were dragged here.

Q: Dragged by friends?

B: Yes, and that is different to what they told me at the beginning, that they're all very interested. That in turn means that I need to raise their interests, which is even harder than teaching them English.

Q: Let's comment from a different perspective. You are supposed to comment on yourself instead of them.

B: That's why the tutorials aren't effective and that's not very good.

Q: Okay, how about the others?

F: I think they are effective to a certain extent, because they really wouldn't talk at the beginning. They would talk now, but the problem is that they still don't talk much. For example, they would answer the questions, but stop after one or two sentences. I had to keep on asking them to continue their answers. But what I want is for me to ask a question and they would keep on answering, like there's no need to force them to answer by drilling with minor questions.

Q: Okay.

B: That's actually pretty good, haha. They still wouldn't talk after my 10th tutorial.

F: No, because when no one is speaking I had to say: "It's okay, just talk like this". And when one talks, others...

Q: Would talk as well. Yes, so you think the tutorials are effective in a way that you can make them start to speak English.

F: Yes, I want to speak for longer, or more.

Q: What do the others think?

D: Their interest seemed to be declining, like sometimes they're not attending every tutorial. Like last week, there was no school and so they were unwilling to attend my tutorial. And only one student attended the previous lecture.

Q: So they are very lazy, and don't want to attend tutorials when there's no school? Okay, so how about yourself? How would you rate yourself, do you think? Do you think you did well in providing the tutorials?

D: Not very good. Sometimes, maybe the time management just isn't very good. Like I have prepared a huge amount of materials, but maybe some parts just require longer explanation, and I would waste time on that and so I might be unable to finish everything.

Q: So you couldn't teach everything you've prepared. How about Kate?

D: I think I did my best, but I don't know how to grade myself, because I can't find a way to assess whether they have learnt what I've taught and.. I forgot what I had to say.

Q: That's fine, you can add to it later. So you are unsure of the result of the tutorials?

D: Yes. I think they actually want to learn; they are willing to listen to me I think. I mean, apart from the last 5 to 10 minutes where they start to fall asleep, but I don't really mind, because it's the last 5 to 10 minutes, I understand. English is quite boring. At the beginning they would complete a small exercise after learning something and get them correct, something when they get it wrong I would explain it to them again; but after a few tutorials when I asked them to write an essay, they made the same mistake again. That's why I don't know if they've actually learnt what I taught them.

Q: I guess it's hard to judge. How about you, C?

C: I think what I earned was experience. We have to do internships if we study at education institutions, and it can be that when a student raises a question I wouldn't be able to answer it. But now I have learnt how to avoid it, no, I mean how to deal with them. If this is the real internship and I don't know how to deal with that, I think that would be a huge issue. This is a very good experience for me to think about feasible solutions to this problem in the coming year or two so that I can cope with my internship in the future. I feel that this helps my career a lot. This is what I've gained from this program.

F: I think what I've gained from this is a sense of responsibility, because you have to think and prepare what you want in a lesson. You are responsible for preparing what you want to teach and what you want them to learn. Yes, the three students have spared time and came so far to attend your tutorial, you wouldn't want to deliver a poorly prepared tutorial. So we'll have a better sense of responsibility and want to teach well, allowing them to gain from this program as well.

Q: How about the others?

B: I think what I have gained is the ability to manage a tutorial. At the beginning I thought: "Oh, these tutorials should actually be more relaxing. If they would definitely think 'oh, this is so boring' in my tutorials, I might as well be more lenient and make the tutorials more relaxing", but maybe it cannot be done this way; they will be over-relaxed and will play with their phone throughout the lesson. I would think that unacceptable. Yes, but actually the first tutorial is the most important in framing your image. I have asked my friends after my first tutorial; I have friends who are teachers, older than me, and they said: "No, they would definitely test your bottom-line at the beginning, you cannot set it too low and be too lenient, otherwise you would fail". After that I became harsher and harsher every lesson. This will really help my tutorials in the future; this is a class-management skill. I am only going to deliver 12 tutorials for this program, but if I am to complete my one-year internship in the future, or half a year, it would be a big issue. That's all.

D: What I've gained... I think in terms of organization, I have learnt more on how to organize notes. I have to organize the worksheets for every lesson in a very tidy manner so that my students can understand and read from home. What else is there? At the beginning I sat for the entire tutorial and only talked slowly about the materials that I had prepared, but then I realized it is better to step out and talk; the students can see better and it is easier for them to copy the material. I was pretty straightforward with teaching at the beginning, but later I began to

integrate humor into my tutorials, and they laughed when I conducted lectures. For example, I was discussing about a question and was teaching the phrases “who do you hurt?” and “who hurt you?” Well, the answers to these questions are very different; one means that you are hurting someone, and the other means that someone is hurting you. And as the discussion went on, they laughed and eventually understood that you cannot add ‘do’ to every question, and so they’ve learnt something. I think that’s quite good. I wonder if they can really remember or understand the materials.

Q: How about you two?

F: I also gained on preparation skills, and interactions with students. I seldom interact with kids younger than me.

Q: So it helps you with communications with children, well not children, but form 2 students. Anything to add? Nothing. Okay. Then I would like to ask, what are your feelings after each tutorial session?

D: I feel okay most of the time, apart from that lesson when I taught them present perfect tense. That feeling was very bad. I had to think of ways to compensate immediately.

Q: What do you do when you think the lesson doesn't go well? What is there to review?

D: I think there's problem in my teaching method. It may be that the lecture is too boring or I am not very clear about the concept myself, and I have to process it through as I teach, making my students very confused. In the tutorial that followed, I used the solution suggested by the tutor Anita; I revised the material again at home, and so the next tutorial went better.

Q: So you revised the material and considered what you could do better.

D: Yes, that's right.

Q: And felt much better after that.

D: Yes, and my students claimed to have understood.

Q: Okay. How about the others? How do you feel after delivering the tutorials? What are your thoughts?

B: I feel tired, because my brain is exhausted. I have to face three students, and that is tiring.

Q: Anything else other than tiredness?

B: I always feel that I can never finish teaching the materials I have prepared, and then I'll have to decide whether I should carry on in the next tutorial. If I do, I will not have time to teach the material I have prepared for that lesson, just like that.

Q: So it feels like you have to rush?

B: It's irritating.

Q: But this issue... you were talking about the materials you have prepared. But is the syllabus written by you?

B: Yes, because sometimes I don't expect them to not understand. I didn't know that there would be so much that they don't understand. I have to waste a lot of time explaining, and I feel that I might not excel at expressing myself, and that means I have to spend more time teaching. It feels like we're not on the same channel.

Q: So, what happens next? After you have realized the problem.

B: Stay behind, for a bit. Could only stay behind for a bit.

Q: So they...

B: Well, they were sort of willing to.

Q: To cover what haven't been taught?

B: Yes, I try to extend the lesson for only 5 to 10 minutes. I don't want them to stay for too long. I know they're tired.

Q: How about the others? How do you feel after tutorials?

C: I would feel anxious before lessons. Worried that my planned material is insufficient for 90 minutes; worried that if I run out of things to say they would laugh at me. I would feel relieved for a short period of time after every tutorial, because I didn't make any mistakes and my

students didn't laugh at me; but after those several minutes I would worry about the next tutorial. It is like a cycle that repeats itself after every tutorial, where I would feel relaxed the minute after a lesson, but start to worry again in the next.

Q: So you feel unsettled.

C: Yes, it is like a cycle.

Q: What do you do when class finishes?

C: Because I don't have much spare time, but I have much to do, I sometimes have to prepare teaching materials for 2 or 3 sessions within a day. As I am usually busy, I'm always worried that when it comes to the second or third tutorial I will have to make amendments to the prepared materials again. Then I would worry that I don't have time for that. I'm worried that I'll make mistake at class and perform poorly with time management.

Q: How about you two?

A: Similar to Cassie, after a tutorial I would start thinking about what special method I can use in the next class so that it won't always be exercise-oriented, or video-watching. I will think if there is any new method that can help them memorize or learn better.

Q: How about F?

F: Sometimes the lessons end too early, sometimes I'm unable to finish teaching the materials, and I consider that as wasteful. I continuously think of newer ways to teach them; like searching for interesting clips on YouTube.

Q: So when a class finishes you would think about the next tutorial and how to handle it. That would be a routine. Okay, good. Very quick, we're on question 11. Participating in this community service program, have you tried to use certain ways to improve your own English skills? Any strategy, skills to polish your English skills?

D: I would read, that's my primary source. Or I would search online to see if others have ways to make memorizing easier. Yes.

B: For me it's mainly the Internet, because I usually teach grammar and vocabulary. Verbs are easy to find—look up the dictionary and find samples of usage. If I am to teach grammar and tense I would search online to clarify the concepts.

Q: To avoid making mistakes. To clarify your English usage.

B: Yes, that's mainly it.

Q: How about you?

C: Stimulation. To imitate what I would say the next day. If I think of a sophisticated word that I would use in lesson that I am not familiar with, I would learn more about it first, so that the tutorial would run more smoothly.

Q: Okay, How about F?

F: Apart from searching on the Internet and reading exercise books, I would dig out the magazine ordered back in secondary school and read them; sometimes the topics can be quite interesting, and there are word games that my students can play with.

Q: How about C?

C: Because I'm not sure if the students understand what I am talking about, I would ask my form 4 friends to listen to my trials on days when I do preparations. But their English levels are not very outstanding, and sometimes they don't understand what I'm talking about nor do my students. After that I thought it would be annoying for them, to occupy their time; we're not from the same class, it is hard to come to a consensus. So after that if I become unsure of something I would find my friends who are majoring in English, because some of them are really good at English. I would ask them immediately when it comes to something I don't understand, and after they teach me I would go back and practice, and think about what my student could possibly ask.

Q: Anyone have anything else to add? Or about yourselves? Is there a difference between your ways to enhance your English skills prior and post tutorials?

B: I don't think so. They're similar.

Q: How about in terms of interests? Interests towards English? Any affects on that?

B: I think so. I am more interested after delivering the classes. I used to think English was very difficult; my English grades weren't very good. But to look back now and clarify certain false concepts, I think it's actually not that hard. Why couldn't I learn better before? Yes, that's the feeling.

Q: C?

C: I think I'm more interested as well. I used to think that it's boring as well. Very difficult, and so didn't pay much attention in learning English properly. As now I would sometimes prepare for my classes, my mother would say: "Wow, you are so self-disciplined?" and I would say: "Yes I am a good girl now", and then I would read more books. I would read about tenses learnt in form 2, which I found very difficult, and find that they are actually quite easy. And now I would learn English once again, and would think that they're getting easier. I would treat that as relearning English.

Q: How about you three?

A: Increase in interest for me as well. I rarely spoke English, but as we have to communicate in English in class, and I can do it now, I feel delighted and happier that I'm able to do it.

Q: Yes, how about you two? I'm asking about interests. Interests in English.

D: Enhanced, because they reacted to my ways of teaching; I feel that they exclaim when they understand certain things, and at that moment I believe everyone's happy. That makes me work harder and become more interested if I am to continue to learn English in the future, because I know that learning something and being able to teach others that knowledge is delighting. Yes.

Q: F?

F: Umm, yes to a certain extent. Sometimes when I prepare for classes I realize that I'm uncertain of much of the materials at foundation level. I would then want to catch up.

Q: To catch up. That's great. Last three questions. You have covered it a little before, but I would like to know if this has an impact on your career in the future? Because I am aware that all five of you will teach in the future? Yes.

C: Yes, I have asked others. Also we don't know yet, when we do our internship in the future, we'll be assigned to either teach in Chinese or English. Now that I have used English to teach, I should be less nervous in the future if unluckily I get chosen to teach in English. Though I think it's quite impossible for me to teach in English in my future career. But this should be helpful towards out internship.

Q: So you think it may be useful for your future internship and teaching. How about the others?

B: I think, I think this really is a good experience. As the English language level of my students vary greatly, it's quite a unique experience; it might not be very unique, but even if it's a very common situation, I already know how to control it. There are students with and without initiatives in my class, and that makes it feel like I'm teaching a class of forty, at a miniscule scale. Some are very proactive, some are not; some possess adequate English language skills, while some don't. How to balance them out? I still don't have a grasp on that. I don't possess the skills yet but it definitely helps, when it comes to teaching in the future.

Q: You guys?

A: Rise in confidence. I am quite introverted when it comes to speaking. Luckily I am only teaching three students this time. I think I can handle it.

Q: So it allows you to taste how it would feel like to teach forty, thirty student. How about you two?

A: How to control the interaction and relationship with students. I mean I thought I would be teaching form 2 students, but look, for example, even if it's University students I need to deal with, they're quite mature compared to me and I didn't know whether we could communicate. But I realized it is possible now. Yes.

Q: Okay, so gains in terms of communication with students.

D: Gains from communicating with them, and I've learn what expression to put up in front of students. I think it's helpful, because I was uncertain whether they have understood, whether they were listening to me; there was a bunch of questions in my mind: is everyone connecting? Like that. I am currently teaching in Chinese, so for sure I would have confidence. I'll have to teach in English, so I guess it only helps me with raising confidence and handling expressions in front of students. It's not from this program that I obtain the skills to teach in English. I might have to go to school for that.

Q: Good. We are approaching the last question. So if there are similar projects in the future, are you willing to participate? Please feel free to express.

B: It depends on the situation, and depends on time, because I am starting to have much work to do. I am entering a semi-professional stage in terms of my studies and extracurricular activities. I have licenses to obtain, so it depends on whether I have time.

Q: There are many subjects and many things to learn.

B: Yes, It depends, if I have the time. If I do I hope that I can participate.

Q: So the main problem for you is time...

B: Preparation takes a long time as well.

Q: Okay, how about the others?

A: For me well, if I have the time I would participate, because it is a rare opportunity where you would teach in English.

A: Just like how B talked about the time issue. So your main concern is also whether time allows. Okay. Your case is rather special, K.

D: Yes, I have to go to another group. But if I don't I think I will participate. It's quite relevant to what I will do in the future.

Q: How about you, F?

F: It is also a matter of time. My timetable next year goes from morning to the evening. I didn't arrange it very well.

Q: Yes. So it also comes to time. How about C?

C: Same for me. I won't have any days off next year. But I think the selection of students is also important. For example if I am to teach more capable student I don't think I'm good enough for that. It's very tiring, now that I don't have to go to school I have some time for it; I think primary students are good, or junior secondary school students.

B: And I think the project is to be continued, we should be able to change the students.

Q: Change students.

B: Yes.

Q: We have reached the end. Any comments? You can freely throw in anything. Maybe B can elaborate on changing students. How to change students, you mean?

B: That means not to teach the same three students again. It is not that I don't like them, if I teach them continuously there will not be much new chemistry and so I won't gain anything new. It will always be those three. Although we are closer now, maybe I can really help them, but for myself, I think encountering more students with different personalities is better. I don't want to teach one type only. I want to try to teach more people. Yes.

D: How about you guys?

D: But I think, what would happen if you do not follow the progress of a class? They will have to switch teachers as well, if you are to switch students. They will not get used to it. I don't know. I think...

B: But this program is short. Actually a 12-session course is very short. Don't tell me you want to make true-hearted friends.

D: True.

A: I think they made a good suggestion in suggesting that we should teach primary schools students. I want them to learn English through games, but I fear that if I play games with secondary school students, they will think that I am immature.

Q: So you suggest that we can try to teach primary school students. Okay, how about F? You can talk about anything; there is no destined question here.

F: I want to try teaching primary school students as well.

Q: Yes. So you feel that it's alright to teach primary school students in the future.

B: I think teaching primary school students may not be useful in terms of improving our own English levels, as there is a huge gap in levels. But no, I think the English taught at primary schools nowadays is quite challenging. Sometimes there are words that I am unfamiliar with when in primary school. So maybe if we are to teach primary school students we shouldn't choose junior ones, we should try senior primary schools students.

C: For me, I wouldn't want to teach primary school students, because you wouldn't know how to teach the really young ones; we can play games, but I don't want to play games all the time. If we teach senior primary school students they'll have to take the examination for entering secondary schools, and it feels like we would be stealing their time from exam prep. Those two years are very important to them. So for me, I would like to teach form 1 or form 2 students the most. They are like little sheep and they won't criticize you, and they don't know much English. That's great.

Q: Okay. Anything else you want to say? Ah, I have an extra question regarding the duration of the program. So we've set this pilot project with 12 sessions. Do you think—we haven't finalized the details nor decided the duration—but how do you feel about following their case for one term, or even two school terms? Will it be too much for you?

F: Because some of us have very packed timetables, and we would finish class at for example 9pm at night. Some people don't have days off.

B: I think it's hard to sustain.

F: I think it's okay if we are to teach them once a week, but twice a week is very time consuming. We need to spend time on preparation and it's hard to find two days where everyone is free to have a tutorial. I think one lesson per week is more manageable.

Q: So once a week. Duration might not be a problem, but the number of classes per week is.

B: Yes.

Q: Then I would like to ask, if we are to recruit students from EdUHK is it better to target year one students? You are moving to year 2 now, which type of students do you think we should recruit?

D: Does this have to be in English? Do we have to teach in English through the program?

Q: Yes. But they don't have to be from the faculty of English. They can be from other faculties.

B: I think everyone should be able to join. This is definitely a rewarding experience.

Q: Yes, so it shouldn't be limited to year one students. It shouldn't matter if they have just learnt how to teach or...

B: Or we can recruit those who haven't done their internships, because those who have completed their internships would know how to deal with everything. So maybe this can be a stage to explore and trial prior to internships. Yes.

Q: That's good. Do you do the internship in year 4? Or...

C: year 3 and year 5.

Q: Year 3 and year 5? Okay. Anything else to add?

B: The homework I assign to my students; they don't want to hand them in. They always forget to bring them.

Q: Is there a way to make them more engaged...

B: They don't see the assignments as important. I already gave them 5 to 10 minutes in class to complete them, according to what you've asked me to do, they still wouldn't do it.

Q: So, they wouldn't do them in class as well?

B: They did, for the first few tutorials.

Q: Or do they bring them but wouldn't complete them?

B: I gave them homework because I provided them with a verb table in class, so I gave them some examples and assigned each student 5 words. I asked them to find sample sentences with the words in them; they are not too difficult to find I think. But they didn't bring anything to the next class. I don't think that is a bit over the line.

Q: Is there anyone else who has encounter a similar situation?

A: Just don't give them homework; I know they have to do homework from school. I don't want to give them extra homework.

Q: Okay. Anyone has given them homework before? Did they hand them in?

D: Yes. I deliver two tutorials a week. It is unreasonable to ask them to hand in homework within four days; I have to mark them and that would be time-consuming. They might get their work back a week afterwards. So I asked them to hand in their homework via email. They were all on time the first time; one handed in late the second time, but he provided an acceptable reason.

Q: I would like to ask... solely about the students. This is supplementary material to help us to communicate with schools in general and about advising them on how to select students. The school has mentioned that they want to admit students with higher initiation. What do you think about that?

B: I have mentioned before that not all of them are eager to learn. But it could be that they were actually sick.

Q: So they can be. You think.

B: Not certainly, but I think it's hard for a school to decide such a thing.

Q: So you think your students... you have three of them.

B: Yes, one is very eager to learn, but the other two are different to what I expected.

Q: How about students of the others?

B: But I've heard that their students are very good and passionate towards learning.

F: How about yours? Too passionate! Ha-ha.

C: But sometime they really don't hand in the homework I've assigned them. They were easy tasks. A student once asked me what is 'accountant' in English, and I answered him and said: "If you are interested in how to name jobs, why don't you each find one?" And after that they were still unwilling to hand in the work. I reminded them repeatedly for several days, and they came back to me with the same answer. I was angry and never gave them homework again.

Q: How about yours? Are they with good initiation?

F: I have assigned them homework in the first two tutorials, gave them a magazine and ask them to share in English about one of the stories in the next class. They would bargain and only read the short manga stories at the back. In the end, only one person read the story assigned. I didn't assign any homework after that.

Q: But do they do work assignment during tutorials?

F: Yes.

Q: So they do it in class.

F: I had to force them.

Q: How about you?

A: My students are very normal and self-disciplined. They would answer when you ask, and would do any task you assign.

Q: Your class is quite good.

A: Yes.

Q: How about you, K? Are they as self-disciplined?

D: Yes, I would even hand in homework via email. I was quick shocked that they were on time. Some say their students sometimes hand in work after deadline, but my students are on time.

Q: Oh, so they hand in work on the time you set.

D: Yes it's unbelievable.

Q: Very good.

D: If I am your student and I'm asked to hand in work via email, I don't think I would.

D: I think it's hard to get them to find words; that they won't do. If they were given the choice, they would choose to be lazy.

B: But because I am not a hardworking person myself, when I assign homework I would think: "Would I do it if I'm the student?"

D: That's why I was shocked.

B: I was only asking for 5 sample sentences. If I were them, I would do it, but they really wouldn't. I wouldn't scold them. That's not very nice.

Q: You finally know how your teachers felt.

C: I used to laugh at my teacher whenever she makes a mistake, for example: "Hey Miss, wrong word". And there was once when I wanted to write 'new' on the blackboard, but instead I wrote 'run'. I didn't realize that and they all laughed at me. I said: "What are you laughing at?" "Hurry up and tell me what you are laughing at!" and they said: "Miss, you wrote a word wrong". I had to look for the wrong word one by one, and I thought it was irritating.

B: That's what you get for doing the same thing before.

Q: Okay, so nothing else to add?

V: I want to ask a question.

Q: Okay, V.

V: You've mentioned about a workshop you attended before you began to teach. I would like to ask whether your school provided any other resources that facilitated your teaching? It can be hardware or software.

C: Can they show us videos of classes? That's to show us lessons delivered by others as references, to see how they deliver and what expressions they carry; whether they treat their students as friends, or whether they are strict. Show that to us as references.

Q: So it's a video about how teachers should teach?

C: Yes, probably because I have never seen those things before; I get deeper impressions from visuals. I can't imagine how the situation would be like by just listening to my professor. When I entered the classroom the first time I didn't know how my students would be like nor could I remember how I should be like. It's quite stressful; in the first few tutorials I didn't know whether I should treat them as friends or to cope with them as a strict teacher.

Q: Good. So you think providing you with video helps. How about the others? Can you suggest any sort of hardware or software that Vincent has mentioned, that can help you with your teaching?

B: Let us take a look at the exercises they do first.

Q: Your mean exercises from school or...

B: For example grammar books. Maybe to let us know what their levels are first, otherwise like I have said before, all my preparations would be wasted...

Q: So to know the English levels of students; what they are learning at school.

B: But I was really upset. I spent so much time on preparation and the materials were useless. I was quite depressed. I know you had a program for us to understand them better, I understand their personalities but not their English ability. Yes.

Q: Okay. How about you guys? Do you think anything else can help you?

A: I want to understand the students' English abilities as well. If not, I would not know what to prepare.

B: Or, for example, their past papers. I asked them how their exams are like and they said they're similar to the grammar books, and I thought: "Can it be that easy?"

Q: So you want to know whether what they said was...

B: Yes, because I want to imitate their examination style. Of course I would not be giving exam questions, but just the style. For them to become familiar with it.

Q: So you mean sample quizzes and tests. Okay, anything else?

D: I have asked them before on what they're being tested on, and they said grammar. And so grammar was the main topic for the next few lessons, but after the exams they said grammar only accounted for a small part of the exam; mostly was reading instead.

Q: So that means what they said was different to reality. Do you have anything else to add? No. Okay. Thank you very much for your valuable time. I stop the audio recording now.

Appendix P Sample of transcribed verbatim

Q：好啦，咁我唔洗介紹自己，我係 Q，咁我身邊就係 V，咁佢一陣間都係一個研究員去問呢個 Focus Group 既。首先多謝大家參加，咁今次 Focus Group 既目的同我地之前填既 questionnaire 差唔多既，其實都係有關今次參加呢個社區服務，咁其實即係咩呢，就係你地為一班中學生去提供一個英文既輔導班。咁就係對於係教院既學生係英語上既自我效能，即係我地講既 Self-Efficacy，同埋我地既學習參與 Engagement 既探討。咁有關今次既資料同埋內容都會將會以保密既形式來進行，唔會以個人既意見發表既。咁有關既資料都會用左研究既用途。咁我地今次既 Focus Group 就會進行錄音，不過你有權隨時終止我地既錄音，同埋有權拒絕去作答任何既問題。咁亦都唔會對你地有負面既影響，即有關於學校既學習各樣野都唔會有影響既。

咁首先我其實想問下今次呢個社區服務的經驗既，咁就係第一題，你地對於今次既社區服務有 d 咩睇法？一條好 General 既問題，Feel Free 去答得架喇。

B：我講先。(Q：好呀！) 我係 B，咁我覺得呢個係一個好難得既經驗囉，真係有十幾堂真係去同 d 中學生去接觸，真係以一個老師既身份同佢做一 d 學術既探討，咁同埋本身會對我自己學英文會有信心左既。

Q：Okay，咁其他人有無其他意見？

A：咁呢我覺得其實呢個計劃都好有意義囉，即係你唔係話淨係教個 d 中學生，而同一時間都係令自己 d 英文有進步囉，因為你事前都要有準備，都要肯講，咁學生先至會跟住你做跟住你講。所以兩方面都會有進步同提升囉。

Q：其他呢？

D：我覺得教佢地既知識我不嬲都係到架喇，但唔知點樣去傳達俾佢，咁可能初初會有 d 困難，但後尾都有搜尋過自己學過既野再整理返一個方法，即係果 D 步驟，譬如教佢簡單 d，舉左個例先，或者點樣引發佢地既興趣先，再令到佢學到野，我覺得我稍為掌握到呢個方法，所以呢個係我既得著。

Q：C 呢？有無意見？

C：即係我覺得唔知係咪參與左呢個服務之後今自己英文好左，但係我諗將來對我實習都有好處，就可能對我 d 學生無咁緊張先啦，即係可能第一堂會緊張，唔知講咩好，驚佢地好驚我咁，但係而家過左好多堂都好似大家識得搵個方法去相處，我又唔會話鬧佢地呀，即係好似朋友咁教佢地，希望佢地都有得著啦。

E：咁我之前都無經驗去教人咁，咁所以呢次既經驗，雖然有困難，但係非常之寶貴，對自己同對佢地都有 d 得著既。自己備科既時候都會諗多 d 方法去引起佢地既學習興趣咁。咁自己又會溫習返 d 英文既基礎。

Q：好，咁仲有無野補充？不如我問下你地一條，further 問，其實你地以前，我聽頭先咁講，即係你地係無類似既經驗架，係咪呀？全部都無？

B：教人既經驗就有既，但係真係上一個好正式既班就無囉。因為我地同小學補習，或者教武術都會有，都會有教過人，但係教正式既堂就真係未試過喇。

Q：咁淨係你一位幫人試過補過，其他有無試過？

D：我都試過(Q：試過補過…) 一對一既補習囉，而唔係三個人，好似一堂咁。係呢個學校我要站係黑板到，即同佢講解呀，又要停一停等佢地諗一諗，再問佢地明唔明，即係好 proper 既上堂(Q：就未試過)，係，未試過。

Q：即係你地以往既經驗就係單對單既補習，可能 Fion 係咪未試過補習呀？喔，兩位

都未試過，你地三位就試過。

F：試過小組既，但未試過咁高 form 既，佢地有 d 年紀好似有個仲大過我，有 d 同我差唔多年紀咁，有個 18 歲就 19 咁，都有 d 驚咁。(Q: 因為佢地年紀大過) 因為佢地年紀大過我，我驚佢地話我…唔知呀，不過而家都幾好，上完咁多堂。

Q：Okay，咁好喇，我而家去問第二條問題。對於今次參與呢個社區服務，其實對於你地掌握英文既能力有 d 咩影響呢？

B：真係會溫返初中既野，可能已經有好多都忘記左既，即係可能有 d 句式，或者一 d tense 都常用既，但自己都唔會成日用既，但係而家睇返，咦？！原來我都可以試下用㗎，可能教佢地一個句子既結構既時候，點樣可以將一句句子豐富，將佢更加長，更加詳細，其實對我自己都有用囉。

Q：其他人呢？

D：有時我教佢一個課題，我就會同佢講多數 d 人都會錯咩，咁我就特登要搵而家通常 d 人都會錯咩咁，再話俾佢地知，同時我都會覺得我會避免自己重覆犯個樣錯。因為我有時都會出錯。

A：我覺得都會加深我對英文某 d 字既印象，因為有時你見到 d 字又好似好熟，但係又唔會好記得咩意思咁。但係上呢個科，有時會重覆用某一個字咁樣，點到會加深我對個粒字既印象。

C：我自己覺得，即係我又講唔出有 d 咩進步左，好實質咁，但係我會對英文興趣多左 d，由於我以前好驚英文，英文好差，見到英文我唔會主動去睇書呀，唔會上網搵資料咁，但係而家有少少好似被逼住一定要教佢地，又唔會教錯，會主動 d 可能會去圖書館搵下 d 資料咁，跟住又會得閒睇下 d 戲咁，講英文當然，同埋聽歌呀咁自己，會比以前更鐘意英文。但又講唔出有咩實質既進步。

F：以前可能會對於 grammar, tenses 會有 d 混淆好似，跟住就會得過且過，跟住而家真係會教人既時候，就會諗好多方法去令自己清晰 d 囉，特別係 grammar，同埋 vocab 都會豐富左既。但對於我來講，英文既缺點可能係在於 speaking，但係係課堂上面多講廣東話多 d 咁呢方面就無太大既 advance。

Q：咁其實英文有幾方面，有書寫或者講讀咁，其實你地覺得參與呢個計劃主要係幫到你邊方面呀？

或者，好似頭先 Fion 講過 speaking 未必得既，咁其他人呢？即係幫到你邊方面你覺得主要係果方面？

B：寫 (Q: 係囉，可唔可以俾 d 例子我地) 因為我地教返佢地 d grammar，譬如佢地考試個範圍有 passive voice，其實都係一 d 句式既運用，所以寫果方面…

Q：即係你覺得書寫果方面，即係你覺得係呢個計劃入面寫係最好。

B：其實講果個方面真係無乜架，因為唔係我唔想講，係我講佢地真係唔想聽。

Q：即係如果你用英文去教，可能係佢地都未夠果個程度去吸收，所以你就就返佢地既程度就用左廣東話去 supplement (B: 係)。Okay，咁其他 d 人呢？

A：我覺得 speaking，有時我問完 d 句子啦，用英文問既，佢地唔明的話都會用廣東話翻譯一次，一開始佢地都係唔會好主動咁樣答問題，後尾去到最後 d 堂佢地都會主動答問題。

Q：咁佢地係用英文答返你？

A：係呀。

Q：咁好好呀真係。即係你先用左英文問，in case 佢唔明喇，跟住你用廣東話問。但係佢地而家肯用英文答返你既。非常好。你果班係中幾？(A：中二) 中二既學生。

(A：低年班既)。Okay。其他人覺得呢？

D：係咪即係呢個…呢個令到我有 d 咩？

Q：係喇，呢一個係英文方面，書寫講讀，你自己覺得有無？唔一定有架，無都得架。

D：我覺得讀同寫，因為準備教既時候都要睇好多書，跟住仲要去睇戲篩選一下咁，有 d 咩情節要停，有 d 咩情節要值得講，對聆聽都有幫助既。咁寫果方面，我覺得因為一路都有 d 比較多教佢地 grammar，所以對我自己來講，都注意到多呢方面既錯誤，改善左我自己。

Q：C 呢？唔係好知道定係點呀？

C：唔係好知道，但係 speaking 一定唔會，因為我覺得我果班學生好少講廣東話啦，一係就係普通話，一係就英文，跟住我就會好驚同佢講英文，因為我講野佢地又唔明，佢講左我又唔係好明，即係佢地講既，有小小發音唔準既。

Q：即係佢地肯講英文，不過就發音唔係好準所以就導致到…

C：有時我都會聽唔明，跟住我就會好驚同佢地講英文，所以我想講我都唔知同佢地講中文定英文好，講中文佢地又唔係好明，都幾麻煩都…

Q：咁結果最尾你係點呀？

C：兩樣都講，即係有時講中文佢地唔明我嘛用英文講囉。但係我自己就想用中文既，因為都好緊張如果對住佢地講英文。

Q：但係佢地聽唔聽得明？

C：聽得明，但係佢地唔識點樣講出黎

Q：唔係好流暢咁，咁佢同你地講，係課堂裡面，英文都有講既。

C：有用英文，但係自己就用普通話咁樣。

Q：自己圍內對話就用普通話，但係同你講就會用英文講。Okay，好 Fion 你有無野係呢方面補充？

F：對於自己

Q：係喇，對於自己。你剛才講到對於 speaking 未必幫到既。咁你講得有無其他幫唔到既，定係都有呢？

F：都有既，好多時都會有 d 文章俾佢地睇，通常都要睇一次先囉。咁對文章個 d 結構詞語都會有。

Q：好，咁我去第三條問題啦，咁關於我地之前俾既工作坊既，即係個 workshop，咁 total 我地就上

左 3 堂，咁其實你對於呢個 workshop 有咩睇法呀？

B：我覺得係有幫助既，就算入面無咁多細節既野可以教到，因為三堂咋，但係我地既導師真係俾到一個導師係應該點樣既形象俾我地睇囉，可以學到佢譬如講既果個信心，係睇得出架，咁我嘛嘗試去模仿佢囉，教既時候。同埋佢會成日問我地你諗住點樣教呀咁樣，咁我地講左俾佢聽，

佢又有好多好多建設性既意見囉。譬如我上次教我班學生讀詞語個 d past tense 同 p.p. (past participle) 個 D，跟住呢佢就話唔可以淨係咁樣教，好死板，同埋會好難記得入腦囉，所以佢建議我多 D 俾例子，俾多 d 舉例佢地先會識，先會用到，咁我嘛試下咁做，咁見到效果會好 d 囉，真係之後我睇返 d 練習，我會講返，咦，呢個字我教過你嗎，記唔記得呀？跟住佢地會話，呀，有 d 印象，有時會講得出，有時會…我唔知佢地記唔記得，但係都會有回應咁囉。咁我真係覺得佢既建議係好有用咁。如

果真係用我個方式去教的話，佢地都會覺得好悶呀，鬼記得咩咁樣。我諗咁樣。

Q：其他人呢？覺得？今次我地問緊係 Workshop，English workshop。即係我地俾個三堂。即係呀 L 上個三堂。

A：係幾有用。因為我地有個機會一齊聽返同學係點樣教呢。有 d 錯既，唔係幾好個 d 野可以避免囉，例如唔好成堂播晒成套電影咁，可以 click 一段仔個 d 咁。咁就有 d 錯誤可以去避免囉。

D：我都覺得一班人聚埋一齊都有可取之處既。因為佢係好似一個局外人，咁我地好似沉醉係自己個世界諗佢 d 野咁，跟住就局限左喇，然之後好似我上次教 past perfect tense 咁，我上左一堂喇，唔係好知點樣教，咁佢就同我講話你不如好似用個 timeline 咁，然之後就頓時清晰左好多，咁個一刻我下晝去呢，咁我都有指出 past tense 係到，跟住佢地就頓時明白左好多，我就覺得個一堂就成功左好多，信心滿滿。因為第一堂我教完左之後佢地唔係好明，我覺得好太打擊架。佢咁樣，我會諗我係咪做錯左 d 咩，佢明白左我就覺得安心晒咁樣。

C：我覺得都有用，但係唔一樣既係聽完佢教我覺得好緊張，呢個英文老師咁好，但係我係咁樣既人。即係人地眼中既英文老師應該係咁嘛，但係我唔係咁囉，令到我會好緊張囉，上堂個陣，我地係咪會應該做得更好。但係我覺得呢個 workshop 都好有用既，對我來講。(Q：係邊方面呀？) 即係係最後一次既時候，佢有睇其他人既堂嘛，唔好淨係站係出面係到教，因為得 3、4 個同學嘛，入去同佢地近 d 唔好咁遠距離呀，咁個 d 我都有用既。

D：咁即係我每堂都有 d exercise 派俾佢地啦，咁原本有可能叫佢地自己做，做晒跟住俾我改，跟住呢排就會話逐 part 逐 part 咁做，逐條逐條咁講，跟住問返個 d 同學邊個 呀，邊個錯咁。跟住講俾佢地聽點解錯囉。

Q：即係導師俾左呢個意見你，你就反映番俾佢聽就係咁樣教，佢就俾呢個意見你。其實你地都講左一 d 我第四條既問題呀。咁我第四條就想講其實英語導師呢，即係點樣可以提升到你地既英語能力呢？有咩影響？剛才你地 mention 過少少既，有無野要 supplement？還者整理下真係英文導師佢點樣幫到你提升英文呢？或者你覺得，係唔夠個方面有邊 d，我地再上 d 咩堂可以再幫到你地？

D：我覺得佢雖然識講中文，但佢堅持用英文去主導成個討論都好既，即係大家局住要講英文，跟住成個就好似好學術研究咁。然之後講完之後大家都幾有信心囉，跟住就好有滿足咁走喇。我覺得呢個都幾好既。

Q：即係老師用呢個方法就係全程見到你就用英文，你覺得好好既呢個。

D：係喇，佢話唔緊要，如果你覺得英文唔清晰既你就講中文，不過佢都會選擇用英文回應你，同埋佢都持一個好包容既態度，因為我有時講野一舊舊，咁都幾好。

Q：係，其他人呢？

B：佢雖然叫我地用中文，但係我地都無用過中文，盡量都會用英文。我覺得上佢個 d 堂真係好大信心既，因為 講過，佢堅持用英文嘛，但 d 英文又講得好正啱，所以我覺得，咦？其實我都識聽架啱，我都識聽九成啱，好犀利啱。當然我唔知佢係咪就我地所以用 d 好簡單既英文去上堂，但係我發現原來我都好勁都聽得明架啱，完全聽得明架基本上。跟住講既時候，我就會講到點解會咁流暢，即係我覺得自己好流暢既。自我感覺良好咁。同埋真係俾左好大信心我囉，因為其實講完之後，我會覺得我唔應該咁講，即係我會覺得 d grammar 錯，但係佢都會笑住，佢都俾左好大信心我。

Q：咁其他同學呢？覺得點？

A: d 建議都好針對性，即係你有咩問題佢就會針對你講果個問題，俾個建議你咁樣囉。就唔會好空泛，佢真係會俾個提議你。

Q: F 有無補充？

F: 其實每次 workshop 都好緊張，因為要講英文，但係都幾好既，總算有個機會俾我去講囉。

Q: 即係你上之前心情都會有 d 緊張，或者一陣間要用英文咁，一定局住要講英文喇，但係上緊既途中呢或者之後呢？

F: 後期就會輕鬆 d 囉。

Q: 咁或者 C 有無野要補充？無既。咁我嘛 supplement 多一條啦，如果第時我地真係想有同類既 workshop，其實你地想我地可以俾到 d 咩 training 俾你地去幫到你教人地架？

A: 講多 d 關於我地教既野囉，因為有時自己都唔知點做，唯有上網查，但上網果 d 又唔知 唔啱。

Q: 即係係英文既 foundation 係咪呀？即係教下 d grammar 呀，基礎個到。

B: 係，我都覺得係(Q: 你都覺得有用呀?) 即係就算唔係好詳細都講少少。同埋佢地考試既範圍都可以講多 d。即係我問返中學考試範圍係邊到。因為上次我同 d 學生上時，d 學生就拎本 grammar book 出黎就話呢到呢到就係考試範圍，跟住幾個就開始拗喇，跟住我就諗點解佢地都唔知既，點教佢呀。同埋我真係想幫到佢地考試係有用嘛，咁我就想知考試範圍係咪，咁盡量針對，因為得十二堂，咁就想係十二堂點都幫到佢 dd 野，咁所以就可唔可能針對教一教考試範圍 d 野。

Q: 真係佢自己上堂既考試範圍，教緊 d 咩？書係 d 咩？咁佢地有比你睇架？即係佢地課本教左 d 咩？

B: 有既，我問佢平時我個班學生佢地平時上英文堂，因為佢英文太差，咁我就問佢你平時上英文堂點上堂呀？佢地話全程訓覺囉。如果真係呢個情況，我諗我真係幫佢地上多一次堂啫，用中文會比較好 d 囉，因為佢地可能連 passive voice 完全係咩都唔知呀。係要由頭教過佢。

Q: Okay，即係佢有表示過其實佢地上堂係有聽唔明，所以佢地就全程訓覺。其實呢班學生學野既 initiation 係有無架？

B: 有，個別啦

Q: 即係 okay，有 d 就嘛嘛地，咁佢學其他堂佢地都係訓覺定點架？

B: 咁我又無問到佢。

Q: 你無問到佢。Okay，其他人呢？

F: 我諗佢教多 d 點樣教學生，因為我記得佢第一堂講過要事先預計一 d 突發情況，即例如個學生問你野，你要點樣答，要時先諗定。但係我就返屋企諗，我就諗黎諗去都諗唔到，佢又無講到啫。我諗如果佢下次可以講埋，即係搵一兩個例子同我地講，咁我就會再諗一 d 新方法去對付佢地。

Q: 即是你頭先講既就係點樣去應付學生既問題(F: 係呀)。又俾 d 例子你，你會覺得幫到你既。你地覺得呢？

C: 我想佢教點樣令學生點樣學好 d 英文。即係有 d 咩特別既技巧呀，令到我都入腦 d 囉。

Q: 係，有咩方法令佢地容易 d 記 d 或者係容易 d 學 d，呢 d 既方法可以幫到你

地教學生。Okay, 咁大至上都關於英文既 workshop, 無其他野補充喇? 好, 咁我轉下另一個話題啦, 就係你地準備果個補習喇, 咁我想問下你地點樣準備補習架?

B: 我一開始, 即係我未上堂之前, 我走去圖書館搵返中三個班, 我教個班係中三, 咁就搵返中三個班個 d 書啦, 咁就搵晒 d 課題出黎, 就影低晒, 跟住就返去睇啦。睇完跟住上第一堂, 佢地 d 程度係到唔到果個水準, 跟住我預備果 d 工作紙就全部白費晒。因為我都搵左好耐嘛。

Q: 即係佢地既程度未 up to 你覺得既中三水準。

B: 完全未到, 我諗佢地真係小學程度, 因為我知道呢, 我知道佢地差既, 我有一堂落左 d 小學既

練習俾佢地做, 唔識架, 即係一個好簡單, 一個問題既開頭, 即係 What, Who 呀, 佢地唔識囉, 所以我都幾驚訝囉。去到中三竟然連呢 d 都唔識, 咁其實佢上堂學左 d 咩?

Q: 咁你經歷左, 頭先你話呢個係你最初, 咁之後點算呀?

B: 咁我就清楚佢地既問題, 原來佢地係唔識字囉, 唔係唔識字, 即係佢地 d vocab 係極度缺乏, 所以我就多 d 教佢地 d vocab 囉。

Q: 即係你 identify 到佢地 d vocab 好差

B: 係, 因為我都有問佢地其實你考試識唔識做架? 佢話跟本連條文題都睇唔明, 咁點做呀? 咁即係佢地 d 英文 d vocabulary 太差。咁佢地連問乜都唔知。咁無辦法架, 佢地話佢地 d 英文卷係照抄返條題目落去咋, 咁所以我盡量, 個 d 動詞表, 俾多 d 佢地睇囉。話你而家想一下子追到你而家呢個程度係無可能既, 所以我話你地要慢慢黎啦, 最基本就係你地要明左條題目先, 咁樣囉, 所以我之前準備 d 功夫就白廢晒。

Q: 咁你而家呢? 你了解後, 你就針對就係 vocab, 咁你去邊到搵呀?

B: 小學書後面果 d。因為佢地係小學果 d 都唔識。

Q: 所以你搵既就主要係課本喇, 係咪? 好喇, 其他人點樣準備?

A: 都係拎返 d 練習俾佢做囉, 即係一開始頭果幾堂, 即係教佢地, 你話想教佢地 tenses 既, 之後就俾練習俾佢地做, 但係感覺 d 氣氛都好死板。於是聽到有 workshop 聽到有意見會播 d 電影呀, video 呀, 跟住我就嘗試搵 d video 睇完之後就同我地分享囉。即係主要係練返個 speaking, sharing 果 d 呢, 反而個氣氛係好好多囉(Q: 好好呀, 聽到你咁講) 佢地反而想講多過做囉。所以而家都係網上透過 d 歌呀, 或幾分鐘既 video 呀...

Q: 就去 prepare 佢地, 你覺得個效果好好。

A: 係呀。好過做 exercise。

Q: 咁但係一堂有成個半鐘頭。咁你幾分鐘既 video 就足夠喇? 可以上到成堂。

A: 唔係, 有幾段。

Q: 有幾段仔既 video 或者有 d 歌, 頭先你講過, okay, Fion 呢?

F: 嗯, 我情況都有 d 類似咁啦, 都有好多唔係太好, 咁初頭一至三四堂我就準備左一 d exercise 同 articles 俾佢地, 佢地都覺得好難, 都唔識做, d 字每一條都有 d 字唔識。咁 article 佢地又覺得太長, d 字完全對佢地來講係好艱辛, 咁我又搵返 d 同佢地既程度相乎既, 跟住佢地做練習都會趴晒係到做。即係好悶, 咁我又諗 d 方法, 譬如整 d 句子既 matching 俾佢地啦, 播片啦, 即係上次同你講過畫畫個 d。

Q: 不如你講多少少你畫畫果個, 可能其他同學都無聽過。

F: 因為之前係 IEd 果到 d 老師都有畫過既, 就係俾一張圖我地, 跟住 d 同學就要

用英文去形容，跟住另一位就要畫返出黎。

Q：你試左喇係咪呀？你覺得點樣呀個反應？佢地接唔接受呢個遊戲？

F：Okay 既，佢地都好怕醜，都好驚會講錯，但起碼佢地都試囉。

Q：係？！好好喝！C 呢？

C：我既情況同 (B) 相反，我起初都搵 d 簡單，佢地 form 4，我搵左一兩篇 reading，一篇就係 form3 既一篇就係 form 4 既，跟住佢地做，跟住佢地話 miss 咁簡單既！跟著佢地 d vocab 都好豐富啦，因為我好多時準備課時，我都會讀一讀果篇野俾佢聽，既係可能佢地有 d 字唔識，我諗住，跟住我就係到查啦，有 d 咩字唔識我 highlight 左查，跟住佢地話我知道點解，好啦，我講啦咁樣。佢地真係識好多字，真係識好多字。即係可能我識得少啦，我好多查完之後佢地都係自己講左出黎，跟住唔係我講，我都幾佩服佢地。跟住我就搵左 d 以前會考，去圖書館搵啦，會考果 d exercise reading 既，應該係 form 5 既程度，即係佢地都話 okay 呀，即係我見，都有俾問題佢地做既，佢地都答到咁樣。即係我覺得佢地程度都係…

Q：即係你拎左 d 中 5 會考既 exercise 俾佢地做，佢地都做到？

C：即係唔係話好高分或者 晒咁，同佢地睇篇文佢地都明點解囉，即係佢唔識個字佢地都好易咁估到出黎。

Q：咁都幾叻喝！

C：我覺得佢地真係好叻呀！

Q：咁除左 exercise 之外仲有無其他既，即係你主要 prepare exercise。仲有無其他既野？

C：呢排就主要教佢地，因為就算佢地肯講英文啦，佢地 d tenses 都可能有少少唔咁，咁我都有問過佢地，其實佢地知唔知用咩 tense 架，佢地講得出但係唔係好明入面係點樣用，撈亂個 d，跟住我就而家就開始教返 d 簡單既野，即係可能 vocab 個 d 佢地都可能已經識好多喇，咁我就唔會獻醜，即係唔會再係咁塞 d vocab 俾佢地咁。我自己又辛苦自己，咁我教返 d 簡單既野，可能佢地之前學過但唔記得既，咁我就可以教返佢呢 d 簡單既野咁。我自己又無準備得咁辛苦囉。

Q：好！咁頭先問過你地點樣準備，咁我想問下其實你地準備上有無遇過 d 咩困難呀？

A：我覺得係有既，因為個份量好大呀，又 tenses 又 grammar，所以就唔知教佢地邊樣囉，所以有時 d 堂真係跳黎跳去，今日教你 tenses 既，下堂又教你另一樣野，好似好少連貫性。

Q：即係係果個課與課堂之間既連貫性你覺得好難好做。其他人有無同類既睇法？

D：可能教之前都唔知佢地識得 d 咩，跟住教左幾堂，跟住你不與寫 d 野俾我啦，先知道佢地連好簡單既 tense 都搞錯既。或者一路誤會完來 passive voice 係 past tense，即係一路都以為係咁，跟住收到佢地篇文先可以再編排後面 d 野點做囉，但係有時都覺得唔知 d 野邊樣先，先至可以連貫 d 呀，或者等佢地由淺至深咁。唔知點樣編排。

Q：其他人有無遇到咩困難，除左係編排方面連貫性…

B：我就…我 講過佢地 d vocab 好差，咁我地就搵多 d 動詞表俾佢地睇。咁其實我知道咁樣上堂都係悶既。但係我又好清楚咁樣先可以幫到佢地囉，但係佢地又悶得制，咁唯有中間播 d 電影呀，但播完 d 電影佢地又唔明既，咁我就係到諗啦，跟住

我就要揀好多戲去…我要睇好多，我自己要睇下呢套戲講英文係清楚 d 既，呢套就好”lur” 咁就唔要呢套 la，但係其實我覺得最好係播卡通片既，因為卡通片 d 英文係清楚同埋簡單，但係我又驚話我播卡通片佢地會覺得幼稚。所以最尾都搵到，但係真係好少電影係…

Q：到佢地既程度既，C 呢？有無咩困難？

C：即係一開頭有 d 係上網搵資料既，搵到 d 文章可能係一個中學生寫，跟住我又唔知佢係咪全部

晒咁囉，咁我就好難篩選到一 d 係 既俾 d 學生囉，因為網上個 d 有好多錯既我睇唔出囉可能，教錯學生我就會好擔心囉，所以我就覺得比較困難去搵一 d 教材，因為如果你地淨係俾 exercise 佢地去圖書館咁搵，做呢 d 會好悶喎，咁我可能想搵 d 有趣 d 既文章，又唔知上網果 唔，我覺得搵資料係比較麻煩。

Q：搵資料有困難，其他同學呢？

F：佢地成日都想睇電影啦。

Q：成日都想睇電影。

F：我都有諗過字幕果到，全英文佢地會睇唔明啦，如果有埋中英文佢地一定會睇中文。

Q：即係字幕既…

D：上次播戲跟住播英文，跟住播左廿分鐘，一個已經睇緊佢自己帶來的雜誌，一個就眼就已經望左側邊，跟住就覺得係咪真係咁悶呀？明明我覺得好有趣應該好 佢地嘛，跟著過左一陣就話轉中文啦，你地係咪睇得明 d 呀咁樣，跟住就係側邊寫低 d 我覺得 用既句子，就會覺得學到少少野囉。跟住過左第三堂，就播左之前果 d 戲啦，佢地都好自然咁選擇左中文

Q：睇中文既 script 係咪？

D：係呀，跟住睇英文其實佢地一睇就無興趣啦，即係好似佢話俾我聽咁，一上英文堂就即刻訓覺。佢地係咁講架。

B：咁我最尾播個 d 電影係中文字幕既。但係我反而見佢地都好專心睇既，跟住呢我有個學生，我有三個學生，最熱衷學習個個佢會成日問我，睇完個中文字幕，嗰呢個字應該係點讀架，讀邊個字先至係字幕既呢個字呀？譬如”妹妹”其實佢讀果個字係邊個呀？咁我話”sister”，咁我就教返佢囉，反而係我個班到用中文字幕會好 d 囉。

Q：用中文字幕但係佢地都有動機去問返你 d 英文。

B：同埋我見到佢地自己有跟住讀囉，我就好出奇，都幾出奇，咁好既，佢地會自己跟住讀，咁反

而呢個學習既興趣會提高左囉，因為睇電影 The MXXXX，盜墓 XX。

C：我上次播個陣用中文字幕，我自己睇都開心 d 啦，跟住我問佢地，你地想中文字幕啦，佢地話下？做咩唔英文？英文堂喎，跟住我話好啦，播英文啦，跟住播到十幾分鐘問佢地你地睇唔睇得明架，跟住佢地話明呀 okay 呀，佢地 d 笑位佢地真係識笑喎，我諗佢地應該睇得明囉，我自己就真係無辦法，本身要中文嘛。

Q：咁其他呢？有無預備上面既困難？

A：你地係咪播晒成套架？

D：係呀，我分開左兩段

B：一定要

D：一套戲都成堂

Q：即係分開一段一段咁播俾佢地睇，咁我想問你地頭先講過幾樣野啦，就係連貫性果到未掌握到啦，係搵材料果到可能會搵 d 戲等等會出現問題。其實我想問下如果你地真係遇到呢 d 問題，其實你地點樣解決架？

B：真係睇多 d 戲，其實我屋企有限架嘛果 d 電影，唔會上網 download 落黎，咁即係係自己屋企有限既碟入面找，即係錄影帶都找出黎

Q：即係多嘗試，自己解決呢個問題。

A：我搵到圖書館 d 電影都好多。

D：咦，要特登返 EdUHK

B：係囉

Q：咁除左呢個呢？揀呢個，無其他問題喇？就主要係覺得係準備上既問題，揀個教材姐，有無其他方面呀？

B：教材，同埋我覺得 d exercise 啦，即係我係要教返佢 d 考試範圍既，但係我搵翻 d exercise 又係 d 中學既程度，佢地又唔明，佢地根本就唔明我講咩，好難教架真係，變左真係好難搵到 d 好適合既 exercise 俾佢地做。

Q：咁即係係個揀選教材，咁你地真係 identify 到呢 d 問題你點解決呢？

B：唯有我自己作囉，我自己做一 d exercise 就唔係去搵一 d exercise 囉。

Q：即係自己 design d 教材出黎教佢地，你既方法。

B：但係咁樣既缺點就係唔可以作到好多題，同埋我都驚我自己會錯，雖然真係好簡單好簡單咁，但係我都驚會有錯既機會。

Q：其他人呢？

A：同埋有 d 時間都好似好緊迫咁，我上一，三嘛，我星期一上完星期三就黎咯，咁時間方便都好緊迫。

Q：有咩辦法都可以解決到呢個問題？即係時間方面？

A：即係可能要提前做晒果個禮拜 d 野囉

Q：即係 time management，佢仲要自己去計劃好 d。你呢？F？有咩困難或者去點樣解決平時？

F：學生都有 d 差既，有一位同學好 d 既成績好 d，主動性好 d 既，其餘有兩位呢兩方面都好差既。

咁我真係照顧果兩位多 d 囉，多 d 問佢地問題囉。

Q：你自己解決就係將個時間分配，可能覺得果 2 個無咁好就擺多少少時間俾佢。

Okay，我頭先有無

留左，有無問你點樣準備？係咪無問到，你係咪無答到？

D：唔知，好似無。

Q：係呀，我想補充返呢一個。

D：點樣準備教材？(Q：係) 通常都係上網搵啦，咁我教既時候就睇一睇，我有一本書既，就係一 d 關於 grammar 既，咁我就會係入面篩選。如果需要相關知識既時候，如果點樣編排呢，就睇下佢有咩唔明啦，咁可能開頭果幾堂就比較散 Sau Sau 既，即係可能教下 d 閱讀技巧咁。跟住後尾發現係佢地作文有 d 咩錯呢？咁我就開始諗可能教 d tense 好 d，咁就好 d，4、5、6 堂教 tense，然之後到左尾尾，譬如第十堂時，我又發覺佢地有時讀音佢地讀得好唔正咯，跟住咁我就有兩堂我就教左佢地少少讀音咁，後尾佢地好無興趣啦，我唔知點解佢地好鐘意寫野，我覺得好似被虐，好鐘意聽左 d grammar 既知識再寫再作，然之後教佢地讀完讀音佢又無咩興趣，咁就唔

緊要，跟住我就教佢地 **passive voice** 果 **d**，咁佢中間就夾雜左，譬如與到一 **d** 唔識既字就會解釋，記唔記得上次講過果個 **magic “key”** 咁果 **d**，咁個音就會長 **d**，一路教佢地讀音，一路教佢地 **d** **grammar** 囉。咁樣囉。

B：我有少少野想補充。因為我個班呢，個三個呢，即係我頭先話佢地程度好差，但係其實有一個呢真係接近到中學既程度。所以我比練習佢地個陣時呢，即係佢地程度差得太遠啦，所以我要可能好叻個個呢就要比返中學既練習佢，其他個 **d** 就比返我整好既練習比佢囉。

Q：既係你可能要 **prepare** 兩 **set** 既野…

B：係呀，我時間上都要多左…

Q：多左一倍出來咁。

B：係啦。

D：哦，同埋有時教完佢地 **d** 野呢佢地都唔係唔識架喎，識完之後呢無幾耐要佢地運用返跟住佢地唔記得晒囉。都唔知佢地係入面，都唔知佢地返去有無好好記住既咁樣，有 **d** 蹦蹦地囉，唔知點樣維持佢地既水平呀，唔知點樣令到佢地係屋企都記得個樣野，即係比佢地做練習佢地會交比你架好乖架佢地，咁交完比你之後到最後比如要寫文集合晒佢地所學既知識，咁有時有 **d** 好輕微既錯呢佢地都會犯囉，即係太唔小心啦我覺得。

Q：咁你，你好似無具體講你覺得既困難係點樣解決？

D：個個困難就係要去令到佢地下一堂都記得上一堂既野，跟住到最後都識得運用返，我覺得唔識得點樣去維持佢地既水平囉。咁就我搵既解決方法就係每一次佢地作文之後啦，咁我就會睇下佢地三個有 **d** 咩錯，跟住就集合一下，即係你地大部分人都係咁錯架啦，你係咪唔記得左我地上次講咩野咁我就稍微講一講話“唔係咁樣斷句呀 **because** 後面唔可以就咁 **full stop** 架，咁係無呢回事既咁我同佢講。

Q：好，咁呢就都去到一半架啦其實。你介唔介意講下自己呢比既補習課有咩評價呀？評價啦，你自己評價自己啦，同埋就係有 **d** 咩成效呢你覺得？明唔明白個問題呀？

B：無用，哈哈。

Q：即係點樣評價自己既補習課啦，同埋就係覺得就係有成效呢？你地覺得。

V：或者你地有無咩野方法去 **assess** 佢地學到 **d** 咩野呢？有無成效出現到呢？即係呢個係。

B：如果要我講成效即話呢我覺得真係好失望囉，因為可能我依家重係教，都係上左半堂啫，但係我覺得佢地又即係開始唔係好積極囉其實。無我一開始想象中咁積極囉，佢地日日都唔係好想上。我問佢地其實你地係咪自己黎參加架，跟住有一個話“係呀，我自己黎參加”，跟住其他個兩個話我比佢拉黎咁樣。Q：比朋友拉黎？

B：係呀。咁就，咦咁就變左唔係一開始佢地同我講話佢地全部都好積極囉。係囉，咁我變左，反而變左我要提高佢地既興趣，反而仲難過我要教佢野。

Q：咁你掉返轉呀，你自己 **rate** 自己喎唔係佢地。

B：咁所以咪無咩成效，所以咪唔係幾好。

Q：係，咁其他人呢？

F：我覺得成效就少少既，因為一開始佢地真係唔肯講既係，咁宜家就肯講啦，但係個問題係佢講得唔長囉，即係唔多呀。即係佢地係囉，個答案係講，講一句至兩句就已

經停左囉，就要我再繼續問佢地先會繼續答囉，但係我就想佢地即係我問佢地一題問題佢地都會 keep 住係咁講落去囉，即係唔使我一路係咁問問問問 d 細問題佢地先至答咁樣囉。

Q: Okay。

B: 其實已經好好架啦，哈哈。我去左十次佢地都唔肯講。

F: 唔係，因為無人出聲既時候我就會話“唔緊要啦，即係好似傾計咁樣得架啦”咁樣個 d 呢。咁如果有一個肯出聲呢其他人...

Q: 都會肯講啦。係，即係你覺得個個成效係在於係佢地個開始挖到佢地開始講英文啦。

F: 係啦，我就係想佢地講長 d，或者再講多 d 咁樣囉。

Q: 其他覺得呢？

D: 佢地個興趣好似慢慢遞減咁，即係有陣時都唔係堂堂都返齊囉，即係好似上個禮拜佢地唔使返學既，咁呢，即係佢地都真係唔願返囉。跟住有得一位同學返左上一堂。

Q: 好懶係咪呀，即係唔使返學就唔想上黎補習啦。係，咁你自己呢？你點樣比分自己呀，你覺得？即係係個個提供個補習課，你覺得自己做得好唔好呢，如果係提供補習個方面？

D: 唔係好好，有陣時，可能係時間管理上都唔係好好，即係預備左一大堆野，即係但係可能有 d 部分要解釋好耐，咁用左好多既時間，咁即係未必做得晒個 d 野。

Q: 無你預期中 prepare 既野可以講得晒。咁呀 K 呢？

D: 我覺得我自己盡左力架啦，但係唔知點樣比分自己囉。因為我都唔肯定即係我都搵唔到一個方法去測試佢地到底係咪學有所成，跟住，我唔記得重有 d 咩要講。

Q: 唔緊要，你一陣間再補充啦。呢個成效就唔係好知道係咪呢？

D: 係囉。我又覺得佢地其實係都都想學野啦，好願意聽我講野我覺得係。即係除左到最後比如上到最後個五至十分鐘佢先打喊路，咁我都覺得都唔所謂啦，你反正都最後五至十分鐘我明既，英文係幾悶既。但係初初即係係教完一樣野有個小 exercise 比佢運用返個一部分既知識佢地又識架喎，到最後又，又好配合咁做晒啱咁樣。有時錯呢就解釋一下咁，但係過左幾堂要佢寫篇文呢又犯錯，所以都唔知叫做有無學到野咁樣囉。

Q: 好難評估。咁呀 C 呢？

C: 如果對自己評價方面我覺得都幾差既，但係如果成效呢即係對學生黎講我又覺得佢地好似無咩進步，即係我睇唔出有咩進步囉。但係對我自己黎講個成效就係大膽左 d 囉。起碼對學生，即係未必真係英文呢方面，可能係對學生肯講多 d，不過我諗佢地都幾仲意我既，因為佢地呢成日都問呢“Missy，好似 9 月重有喎，你會唔會黎幫我地補習呀？”，跟住我話唔會啦哈哈。好驚訝。

Q: Okay，其實頭先既係跟住 follow up 個條題目呢你有提到少少既你地都，就係你地對於個人有 d 咩得着呢？個人？

C: 我諗最大既得着係有經驗囉，即係我地讀教院一定實習架嘛，咁囉可能有經驗即係比如學生問你個時個學生問我我唔識答，可能我依家知道左點樣迴避下，唔係，即係點樣應付佢地囉，如果你即係依家係真既實習我唔識既話咁都幾嚴重囉我覺得，呢個係一個好好既經驗比我去，呢一兩年儘快就想到一 d 處理既方法咁樣就可以應付我將來，既係對我將來都有好大既好處囉我覺得。最大得着就係咁。

F: 我覺得個得着係真係增加左個個責任心囉，因為你一個堂你要既係咩都係要自己諗晒囉要，既係你教咪野呀，你想佢地學咪野呀，都係你自己負責晒囉。係呀，即係人

地三個咁遠抽空上你呢個堂啦，咁你都唔想好 hea 咁教左佢架嘛。所以我地就即係會增加左個責任心，都想教好 d 佢地囉，即係令對方都有得着咁囉。

Q：其他幾位呢？

B：我覺得我最大得着呢就係課堂上面既管理。因為我一開始覺得“呀，其實呢 d 補習班反而輕鬆 d 啦，反正其實佢地平時上堂都一定‘唉，悶到死’，咁我不如輕鬆 d 啦”，但係可能原來唔得既，佢地會過於輕鬆既，只係係度玩電話既，咁我就覺得喂咁樣唔得架喎。係啦，咁但係呢，其實真係最重要係第一堂，你要下個馬威比佢地睇啦，因為我之後都問過我 d 朋友，因為我有 d 朋友都已經做左老師，即係大過我既，跟住佢地話”唔得架，你一開始佢地一定試你底線架，你唔可以 set 條底線咁底架，如果唔係你就唔得架。咁我之後知道左之後就盡量一堂一堂咁樣就嚴返少少囉。咁但係咁所以對我之後既課堂一定好有幫助，呢個係課堂管理既一個小小技巧。但係因為我依家都係教 12 堂啫，如果之後我實習教成年既話，或者唔係，教半年既話我都幾慘架，半年。就係咁囉。

D：有咩得着，我覺得係個個整理方面，整理 d notes 呀或者係囉個樣野就學多左囉。點整理，因為每一堂既 worksheet 我都要編排得好整齊，先等佢地睇得明呀，到時先可以睇返囉。跟住重有 d 咩呢？即係通過教既時候呢有時一開頭就坐係度既，咁就慢慢同佢地講啦，咁就主要都剩係講返我準備左既野。咁跟住後尾呢就發覺原來企係出面講呢重好 d，即係又唔會失左個個親切感得黎呢又可以比佢地清楚 d 睇返 d 野寫返落去囉，就唔會話要整返過黎先睇到你咁樣。跟住有時教既時候初初就就咁講，後尾呢，中間都可以加一 d 搞笑既元素，即係聽聽下佢地都會笑既，例如我講緊一條問題，

比如我教緊“who do you hurt”同埋“who hurt you”，咁呢兩條問題個個答案都好唔同啦，一條就你打人，一條就人地打你，咁講講下呢佢地都會笑同埋明白左原來唔同問題，唔係全部問題都可以加個 do 架咁樣，咁跟住佢地又明左 d 野囉。我覺得都幾好㗎。唔知可唔可以都記得啦但係唔知佢地會唔會識得呢。

Q：你地兩位呢？

F：都係備課 d 技巧囉，同埋同 d 學生相處囉，都好少同 d 同自己年齡細既人相處。

Q：即係同 d 小朋友，都唔係好小架啦，都中二既學生點樣溝通方面既野又幫助。頭先講左，有無其他野補充？無啦，okay。咁我想問下呢，每次完左輔導課之後你地有 d 咩感想呀？

D：多數都感覺良好既，除左咪話有一堂教佢 present—perfect tense，非常之差啦個個感覺。跟住即刻想方法補救。

Q：你個堂覺得唔良好既時候點做呢？你有咩檢討呢你自己覺得？

D：我覺得係個個方法有問題，既係可能講得太沈悶或者我自己都唔係好清晰個個概念跟住我就一路係度講一路係度嘗試厘清自己，跟住人地就聽得好混亂係囉，跟住第二堂即係後尾個堂補救個堂呢，咁就即係用左個個導師 L 提供既方法再既係自己返去再睇多次咁跟住又明左好多野，咁之後跟住個堂就感覺非常良好囉。

Q：即係你返去再重溫一次想下自己有 d 咩點樣可以再做好 d，咁樣。

D：係啦係啦。

Q：之後教返就感覺良好左好多。

D：係啦，跟住佢地都表示明白。

Q：Okay，其他人呢？上完堂之後有 d 咩野感受呀？感想？

B：咁呀我覺得都叻，因為我個腦好叻呀。因為我一個人要面對三個人，都幾叻㗎。

Q：咁除左咁呢？有無其他？

B：成日覺得我準備左個 d 野教唔晒，咁我又要想，我下一堂教唔教埋好呢？教完既話咁我之後再準備個 d 又唔夠時間教架啦喎，就變左咁樣。

Q：即係有 d 好似追趕住？

B：好煩囉。

Q：但係呢個煩惱係，嗰即係你講頭先你 prepare 既野，但係其實個個 syllabus 係你自己編排架？

B：係呀係呀。因為有時我預佢地無咁多野唔明架嘛，但係點知佢地都有好多野唔明架喎，咁我要晒好多時間，同埋我覺得我表達上面未必太到位囉。即係要講耐 d 囉。好似唔係好啱 channel 咁佢地。

Q：咁，之後點呀？你發現左咁樣。

B：留堂，留少少，留耐少少囉唯有。

Q：即係同佢地…

B：佢地都肯既。

Q：就補返你覺得未夠既野。

B：係，儘量都係留一兩個字，因為我都唔想佢地留咁耐，我知佢地叻既。

Q：其他人呢？有無，上完堂之後你地覺得點？

C：上堂之前呢我就會好擔心，即係驚自己準備 d 野唔夠 90 分鐘咁耐又驚陣間無野講又驚我做錯野佢地笑我咁樣，但係次次上完之後幾分鐘之內呢我就會覺得好輕鬆呀，因為咦啱啱又好似無咩點錯喎，又無寸我又無笑我喎，但係完左呢幾分鐘之後又去返開頭咁樣，即係好擔心哎呀下一堂又點咁樣囉。即係係咁循環，堂堂都係咁，一上完一陣跟住就唉原來好輕鬆，跟住隔一陣就呀下一堂點算呀咁。

Q：即係心情好忐忑。

C：係呀循環咁囉。

Q：咁完左課之後你會點呀？有咩野做呀？

C：因為我本身自己時間唔係好夠，咁好多野做，跟住可能要一次過，可能我今日做準備既就準備兩三堂既野，咁我就其他時間都唔係好得閒既，咁我就好驚我去到第二第三堂既時候就我準備 d 野又要再改過，跟住我就驚抽唔到時間出黎囉，好擔心教錯野同埋時間管理得唔係咁好囉。

Q：你地兩位呢？

A：我同 C 差唔多，上完就會想下一堂可以用 d 咩特別既方法既係唔好一直剩係 keep 住黎話做 exercise 呀，睇 video 呀，既係有無 d 新既方法，即係令到佢地易記 d 呀，或者易學 d 呀，咁樣囉。

Q：F 呢？

F：有陣時就課堂太早完，又或者係 d 野講唔晒。即係覺得好浪費囉，係。同埋要不斷想有無 d 新奇 d 既方法教佢地啦，如果係 YouTube 個度搜羅 d 有趣既片呀。

Q：即係你地完左之後就想下前一堂點樣樣，跟住再想一下下一堂點面對，即係你地個過程好多時都係咁樣既。Okay，好，咁好快啦，去到睇 11 題啦。參加呢一個社區服務呢，其實你地有無嘗試過呢識下用 d 咩計仔去掌握自己個 d 英語呀？有 d 咩策略、技巧去掌握自己 d 英語呢？

D：睇書囉，主要都係呢樣。或者上網搵一搵睇下人地有無 d 易記 d 既方法，令到人地記得囉。係囉。

B：我既話就主要都係上網，因為通常都係教你 grammar，同埋 vocab 個 d 囉。但係你 vocab 個 d 動詞就好簡單，查字典，搵例句囉，咁如果教你 grammar 同埋 tense 既話就多數上網厘清返自己個 d concept。

Q：主要唔好比自己搞錯野。即係 clarify 返自己個 d 英文。

B：係啦，主要都係呢 d。

Q：你地呢？

C：模擬一次囉，即係自己每一次，聽日上堂我會講 d 咩野呀個 d 呢，即係想到如果有 d 字我會用既，而自己又唔識既，咁就自己搵左先囉。既係咁到上堂個陣就會順利 d 囉。

Q：係，F 呢？

F：除左上上網同埋睇 d 練習書之外，都會搵返以前中學個 d 學校幫你訂個 d magazine 呢，會囉佢出黎睇。咁就有陣時 d 題材都幾有趣既，同埋後面都有 d 個拚詞個 d 遊戲都可以任佢地玩下囉。

Q：C 呢？

C：因為我唔知道 d 學生明唔明我講咩，即係我有 d friend 係宜家 form 4 既同我 d 學生一樣，跟住呢我就會即係我有一日，一兩日係專門攞黎備課架嘛咁我就會叫佢地出黎聽我講幾次先，不過佢地程度比較差少少，咁有時佢地唔明我 d 學生都唔係好明，咁之後我就覺得可能咁樣好麻煩，又麻煩人咁樣，即係又唔係同一班學生，都好難夾到，跟住之後我就如果有唔識呀我就可能搵我 d 主修英文既同學囉。因為有 d 識幾個同學都係英文好好既，跟住我就可能有 d 唔識個 d 我就即刻問佢地跟住佢地答完我之後我就會自己係屋企試講一次先，自己係度諗 d 學生會問我 d 咩野呀咁樣囉。

Q：有無其他人有野補充？或者係對自己呢？掌握個英文既計仔有無覺得有無分別呀？即係上堂之後同埋之前。

B：我覺得都無咩，我覺得都差唔多。

Q：咁係興趣方面呢？對英文興趣方面呢？有無影響呀？

B：我覺得有。上完之後係有興趣左既。因為以前覺得其實我以前覺得英文好難既，即係 d 英文成績都唔係幾好，但係宜家陣係走去睇返，去厘清返以前個 d 以前錯誤既概念呢，其實覺得都唔係好難啫，點解以前學唔好既？係囉，個個感覺就係咁。

Q：C？

C：我都覺得興趣大左。既係以前我都同佢一樣都係覺得好悶啦，好難啦，跟住就無心去學。跟住宜家就有時備課呀嘛，咁我呀媽就會同我講話“咦？咁乖既？”跟住我就話“係呀我好乖架”，跟住就睇多幾本書咁樣。跟住就會覺得即係可能睇返 d 以前學既野可能個陣 form 2 學 d tense 跟住我就個時覺得好難既，又唔明佢做咩野，跟住宜家睇返其實原來都幾易喎咁樣。跟住可能宜家重新學返 d 英文，跟住睇返個 d 我就覺得比較容易，跟住就可能再學多次囉，當。

Q：你地三位呢？

A：我都係興趣大左囉，即係之前其實我都係唔多講英文既係，但係宜家你話即係上堂要同佢地用英文對答呀嘛，對答到呀嘛，跟住就會好開心囉，連自己都會開心左，原來得既咁樣。

Q：係，你地兩位呢？係興趣方面宜家問。即係英語興趣方面。

D：都係大左啦。因為見到咁樣跟住自己既方法講係原來佢地有反應既，佢地學到野呢我 feel 到佢地係“哦！”咁個一刻大家都開心既。跟住所以對於自己可能將來繼續學英文既時候都會努力 d 囉，有興趣 d 囉，因為知道你學左 d 野之後再教返比人呢

係開心既。係啦。

Q：F？

F：唔… 都有既。備課個陣都會發覺自己原來有好多基礎既野原來都未搞得清，就會好想去追返。

Q：追返學返識咁樣。唔唔，好好喎大家都。嗱去到最後三題啦，其實頭先你地有提過少少既，其實我想睇下你地呢對於即係，係你地既事業方面啦，因為其實呢你地咁啱五位係咪都係將來都會教書架？係，係你地既事業方面其實你地覺得有無 d 咩野既影響呀？

C：都有，因為我即係問過人啦，即係可能實習既時候呢，將來未知啦，實習既時候呢，可能會抽你係教中文定英文黎教個一科，跟住可能宜家我用過英文黎講呢起碼都將來無咁緊張，如果我咁唔好彩抽中英文。不過我諗如果去到將來我既職業就未必都無咩可能教英文架啦。但係可能對實習都有幫助既咁樣。

Q：即係你覺得可能對於你第時實習，教書既時候會有用。其他人呢？

B：我覺得，我覺得真係就真係一個好好既經驗囉，因為我呢班個個程度既差距都幾大，係一個幾難得既情況。或者唔係好難得既，但係就算係常見既情況咁就更加好啦我已經識 control 啦。同埋我個班有主動有唔主動個 d 咁可以講佢地，即係其實我個班好似係一班四十幾人既縮班咁樣。有既好主動既，有既唔係好主動既，有程度 OK 既有程度差既，我點樣可以將佢地去平衡呢？即係我未掌握得到，未掌握得晒個技巧但係我覺得絕對有幫助。對於我第時教班既時候。

Q：幾位？

A：自信方面都有提升既。自己講野都好內向既。咁呢真係好彩今次係對住三位同學啫，咁係啦，都覺得 handle 到既。

Q：所以即係可以比你一個實習第時如果萬一要接觸四十幾人、三十幾人既時候會點樣？你地兩位呢？

A：覺得同學生相處、同學生既關係點樣控制囉係囉，即係我以為教既話可能到時一個中二，睇下我宜家即係比如話大學咁啦，即係佢咁大都唔知溝唔溝通得到個 d。但係原來傾傾下原來都得架囉，係。

Q：Okay，即係學生溝通方面有得著。

D：都係同佢地溝通學識左 d 野啦，跟住點樣係學生面前個個樣呢我都學識左少少既。都我覺得都有幫助既，因為你我以前最唔肯定個個感覺就係即係你聽唔聽得明呀？到底係咪聽緊我講野架？即係心裡面不斷有一大堆疑問：到底係咪大家即係連接緊架？咁樣。跟住宜家呢就都幾掌握到個種感覺，但係因為將來教書可能係一定要用英文教，咁我宜家只不過係用中文講，咁我當然係有信心 d 啦，咁但係到時就用英文講，所以呢即係可能剩係個個信心方面同埋個個老師樣個個方面呢就有幫助既，但係要用個個語言去教呢就唔係係呢度得到囉，係囉。可能要返學呀或者點囉。

Q：好，咁差不多最尾個題啦，其實將來呢有類似既計劃既話呢，你願唔願意再參加呀？即係 feel free 講。

B：我都係睇情況啦，睇時間啦，因為我都真係多野做，開始。自己學野，自己課外活動都都要進入一個都半專業既階段，所以可能有好多牌要考，所以就睇下有無時間啦。

Q：有好多學科，有好多野要考。

B：係啦。同埋我睇下即係有無時間囉，有時間都希望去參與。

Q：主要既問題你覺得係時間…

B：同埋不過準備個度都係好多時間囉。

Q: Okay, 其他呢?

A: 我都係如果真係有時間既話真係會參加囉, 因為即係好難有一個機會係你會用英文去講野囉真係。

Q: 但係比如好似 B 講時間, 即係你主要既 concern 都係時間許唔許可。Okay。呀 K 就比較特別啦你個 case 就。

D: 係囉, 我要去第二組呀嘛。但係如果我唔使去既話呢我想我都會參加既。都幾相關呀同我個將來要做既野。

Q: F 呢?

F: 都係時間既問題。因為下一年既 timetable 由朝上到晚呀真係。即係自己排得唔好呀。

Q: 係, 所以主要係時間頭上。Ca 呢?

C: 我都係呀, 因為我都係無 day off 架下年, 但係呢我都好大問題就係 d 學生都要, 好重要呀。即係如果再教 d 咁, 即係程度咁優秀個 d 呢我就唔係好得啦。即係好辛苦呀宜家唔洗返學就話可以比多少少時間啫, 咁如果我想小學生都唔錯, 或者係初中個 d。

B: 同埋我覺得如果下即係如果繼續呢個計劃好可能可以轉下學生。

Q: 轉下學生。

B: 係啦。

Q: 噏, 咁其實去到宜家呢, 係最尾架啦, 尾聲。有咩其他意見? 有任何 free throw 既你地都可以講既。轉下學生或者 B 補充返少少咩, 點樣轉下學生呀?

B: 即係唔好再教呢三個。即係我唔係話唔中意佢地, 但係只係如果教好長時間可能已經無即係無左 d 新既問題出現咁我又無 d 新既得着, 咁就不斷就係佢地三個。雖然係熟左, 可能我真係可以更加幫到佢地, 但係可能對於我自己就, 因為我都想對多 d 人, 因為學生都有好多種架嘛, 我就唔想剩係對呢一種, 我想試下教得多 d 囉。係呀。

Q: 咁你地呢, 其他呢?

D: 但係我覺得如果對住一班學生, 你唔跟晒佢全部咁點算呀, 即係佢地呢會轉老師架嘛, 如果你轉學生。咁咪好唔習慣囉。唔知呀, 我覺得呢...

B: 咁你呢個好短架嘛, 其實係一個 12 堂既課程其實好短之嘛, 你都唔想住去交心架嘛下嘛。

D: 咁又係。

A: 其實我覺得佢地啱啱先講得幾好係話可以嘗試教小學, 因為其實我想係透過遊戲去學英文, 但係我又驚呢即係如果係中學生用遊戲既話呢我覺得佢, 驚佢地覺得好幼稚。

Q: 所以可以, 你既建議係可以試下教下小學生。噏。有無, Fion 呢? 咩野都講得既, 即係宜家無特定既問題架啦其實。

F: 都想試下接觸小學生囉。

Q: 係。即係如果你地覺得黎緊既可以試下教小學生你地都覺得 okay 既, 感覺。

B: 我覺得如果教小學生有可能未必太過提高到我地英文水準。即係都爭既遠下架嘛。不過我唔係, 我覺得小學宜家小學既程度都唔係真係易到好, 即係其實都有 d 挑戰既。因為可能我教小一呢都有 d 字我都係唔識架, 我都未學過架。咁所以如果教小學生就唔好即係教小一囉即係。試下教高小囉。

C：但係我如果比如我唔會想教小學，因為即係好細個個 d 你又唔知點教，咁即係玩遊戲咁，我又唔係想堂堂都係度玩咁咯。如果去倒小五小六咁佢地要考程分試咁樣又好似又左住佢地 d 時間咁，即係佢地呢兩年都好重要架嘛，咁如果我自己最想就係教 d 中一、二個啦，個 d 綿羊仔又無唔會駁你咯咁，跟住又唔係識好多咁樣啱啱升上黎咁樣就好囉。

Q：Okay。有無其他野你地想講呢？吖，我 extra 問多一條問題。就係個 duration。喺今次我地 set 係 12 堂啦，咁其實你地覺得，咁如果將來呢真係可能係 through implementation 呢就係由十月，跟佢一個學期，又或者跟佢兩個學期我唔知啦下，因為我地都未定倒既，但係你地覺得呢？即係其實跟一個學期會唔會好辛苦呀真係。對於你地黎講。

F：因為我地 d 時間都好 full 呀，比如落堂，都差唔多夜晚 9 點幾先落堂，咁又有 d 人無 day off 架嘛。

B：其實我覺得維持自己個 d 時間都好叻。

F：即係如果一個禮拜幫佢地補一堂我就覺得 okay，但係補兩堂就真係又要晒時間準備又要偷兩日係咁啱可能佢地放學都要時間得閒咁即係好難囉。我覺得可以一個禮拜一堂會比較易 d 安排 d。

Q：一個禮拜一堂。Duration 可以唔係一個問題，反而其實係每一個禮拜幾多堂係一個問題。

B：都係都係。

Q：咁我想問下啦，咁如果我地呢個計劃如果你地覺得係 recruit 返係 i ed 係咪 year 1 既學生會好 d 呢？定係喺你地宜家讀，準備升 year 2 啦，你地睇返自己，你睇覺得係 recruit 變 d 班既學生會比較好？

D：呢個係咪一定要講英文？既係成個一定要教英文？

Q：呢個係教英文，但係就係啦，可以唔一定係英文既 faculty 既，唔同 faculty 都得既。係啦。

B：其實我覺得哎呀算啦，所有人都可以參加。其實真係一定係，點樣都係一個好既經驗黎既。

Q：唔，即係唔侷限剩係 year 1，無論係啱啱開始學識教或者係…

B：或者或者可以講話實習之前架囉。因為你實習個時都試過晒啦。或者你可能實習之前比個可能其實係一個小小既，點講呢，係一個試既階段囉，比佢試下，係。

Q：都好，即係你地係 year 4 先實習定係 year 幾呀？

C：Year 3 同 year 5.

Q：Year 3 同 year 5？Okay。Okay，好。有無其他野補充？

B：我個班學生佢地唔係，我比佢地 d 功課呢，佢地唔願交呀成日都，都唔記得帶。

Q：即係有無辦法可以將佢地 initiation…

B：即係唔重視個份功課囉。即係我已經去按照你地講可能比可能十分鐘呀或者 5 分鐘比佢地做，佢地都唔做架啦。

Q：下，即係係堂都唔做呀？

B：第一二堂有左做囉。

Q：定係帶返去唔做呢？

B：即係我喺我比佢地個個功課因為我比左個動詞表佢地嘛，咁我咪我比左 d 例句之餘我叫佢可能有 5 個字我 assign 左每人 5 個字，你搵呢 5 個字既例句啦，我想都唔係

好難搵啫。但係佢地都真係無帶返黎囉。咁我又覺得過份左 d 囉。

Q：你地其他有無人遇到咁既同類既問題呀？

A：唔好比功課佢地做囉，因為我知道佢地自己本身都有功課既，係呀咁我唔想額外又比多樣功課佢地。

Q：Okay，有無人試過比功課，有無交架？

D：有呀，我叫佢，因為我一個禮拜兩堂，我無理由叫佢四日之後上堂交，我又再改呢，跟住又要

晒時間，咁就可能要一個禮拜之後佢地先受返自己既野。所以我叫佢 send email 囉，跟住佢地有 d 第一次呢就好準時，第二次就有一個遲左交幾日啫，但係佢都都 ok 有交帶啦咁樣。

Q：我想問呢，宜家真係純粹問個 d 學生啦好唔好呀。呢 d 係 supplementary 既，因為可能係我地對於同學校溝通呢將來點樣搵一 d 學生啦，或者係點樣同學校溝通都有 d 幫助就係你覺得點樣揀選呢 d 學生，因為呢學校都有講過佢地比較想 initiation 比較高既，你地又點睇呢？

B：我頭先講，佢地都未必真係好熱衷去學習，可能真係病左行入黎。

Q：所以真係唔係一定，你都覺得係。

B：唔係一定囉，但係我覺得如果學校又好難去確定呢樣野架喎。

Q：所以你就覺得你個 d，你個度有三個。

B：係，有一個就真係好肯學野既，但係其他個兩個就同我預想既完全唔同。

Q：其他人個 d 學生係點架？

B：但係我聽佢地講話佢地個 d 好好，佢 d 好熱衷。

F：你個 d 呢？過份熱衷哈哈。

C：但係有時我比功課佢地佢地都係唔交，但係即係好簡單既功課即係可能有一個問我會計師英文係咩呀咁樣，跟住我就答左佢啦咁樣跟住就話“如果你地對職業呢 d 咁有興趣咁不如你地返去一人搵個比我啦”咁樣跟住佢地都係唔交。我催左佢地幾日跟住呢佢地交完之後三個係一樣既 d 答案。真係好嬲，以後都唔比功課啦。

Q：你地個 d 呢？Initiation 得唔得架？

F：我覺得頭個一兩堂我有比過功課囉，既係叫佢地既係比本 magazine 佢地睇，睇完一篇之後就要用英文 share 返個個感覺啦，跟住佢地討價還價囉會。剩係睇左後面個個好短既漫畫囉，跟住但係最後都剩係得一個人睇左囉。跟住之後都無比過。

Q：但係堂上面做既佢地有無做呀？

F：有。

Q：堂上面就有做既。

F：要逼下佢地。

Q：咁你呢？

A：我個 d 好正常呀，係呀都乖啦，即係問佢地佢地就會答，比佢地做佢地就會做咁個 d 囉。

Q：咁又幾好喎你個班。

A：係呀。

Q：呀 Kate 個班係咪都係乖架？

D：都乖架。係呀，連 email 都肯交，我都好驚訝點解咁準時，即係呢平時我地圍內個 d group 呀話 12 點之前問唔中有人遲到但係佢地好準時。

Q：哦，既係佢地真係好準時係你預期當中交到功課既。

D：係呀，好神奇呀。

Q：非常好。

B：咁就我覺得如果我係你大學生既要交 email 我都唔交啦。

D：我覺得要佢地搵字先難囉。即係佢地一定唔會搵既，比佢選擇佢一定會選擇偷懶既。

B：但係真係因為我本身自己係一個都唔係好勤力既人，所以我比功課都會想“如果我係我會唔會交呢？”。

D：所以我都有 d 驚訝。

B：咁其實我覺得都係比叫佢地搵 5 句例句啫，如果比我點都唔會 hea 左佢，都會做既，但係佢地真係唔交架喎，佢地真係。我又無方法可以兇下佢地咁樣。咁又真係唔係幾好。

Q：你緊係終於好明白老師既心情啦你地。

C：咁以前呢成日見到老師錯呢我會即刻笑佢呀嘛。“呀 Missy，錯字喎喂。”，跟住有一次我自己上一次我自己想寫新既，跟住我寫做 run 啦，咁寫左係黑板好耐我都唔知，跟住佢地佢地係度笑我，跟住我話“笑咩呀？”“無野呀”“你笑咩野呀快 d 講啦”，跟住佢地話“Missy 你寫錯字呀”，我就要逐個係度搵咁樣。跟住我會覺得好剋人憎囉。

B：呢 d 係報應黎架。

Q：好，咁呢就無其他既意見補充啦係咪？

V：我想搵問一條問題呀。

Q：好呀好呀 Vincent。

V：你地之前有提過 workshop 即係你地係教之前有既。咁我想問下如果除左呢個 workshop 之外有無其他既 resources 學校比到你可以 facilitate 到你地既教學呢？無論 hardware 或者 software 都可以既。

C：可唔可以比 d 即係課堂個 d 錄像過你睇，即係可能參考一下人地上堂係即係個老師係咩樣呀，即係對學生係咪好似 friend 咁呀，定係比較惡 d 咁樣。即係可能比 d 上堂既情況我地參考下囉。

Q：即係真係一個 video 係關於老師點教書既？

C：係呀。因為即係我第一堂佢可能有教左之後但係我都唔見過，因為可能我對 d 影像比較深刻 d 啦，但係真係剩係聽佢講好似自己幻想唔到果種情況係點囉，一入到課室咁又唔知人地係點樣又唔記得以前上堂人地係點，就比較辛苦囉第一二堂個時唔知自己應該係當佢第朋友咁吖，定係真係當返個老師咁樣既形象黎面對你地囉。

Q：好，你覺得比一 d 類似相關既 video 幫到你。你地呢？有無 d 頭先 Vincent 講 hardware 呀 software

呀，提供比你地係可以幫到你地去教學？

B：比少少佢地做個 d exercise 擺黎睇左先囉。係真係佢地做既。

Q：你既意思係學校個 d 定係…

B：係即係佢地比如 grammar book 啦，可能預先比我地睇左佢咩程度先，咁如果唔係我就一開始做個陣時即係開始左我頭先講話開始做個 d 預備工作全部白費…

Q：即係意思摸清本身學生既底細，即係佢既佢本身係學校學既野呀，可以睇少少知道佢地一 d 底既。

B：不過我真係好唔開心呀，我預備左勁耐係完全用唔到囉，所以就都幾沮喪個下。咁我知道你地本身有個 program 去了解佢地，我了解佢地既性格但係我唔了解佢地英文既程度，係啦。

Q：Okay。你地呢？定係你覺得仲有無其他野可以幫到你？

A：都係想了解返學生既程度啦，如果唔係真係唔知道預備 d 咩野囉。

B：呀重有佢地可能以前即係佢地以前個 d 試卷，我都問佢地“你地份試卷係點樣考架？”，佢話，真係好似 grammar book 咁樣架咋，跟住我就想，會唔會真係咁簡單呀？

Q：即係你想知道係咪真係同佢地講既野係咪真係…

B：係囉，因為我想模仿返佢地考試卷個模式啦，當然唔會出返個考試題，不過個模式囉，比佢地習慣返。

Q：即係個 d sample quiz 呀或者係 test 呀，Okay。重有無？

D：因為之前都有問過佢地會點樣考法啦，跟住即係佢地會考 grammar 個 d 嘛，跟住前個幾堂就係主要教 grammar，跟住佢地考完之後就話份卷原來 grammar 占好小部分，大部分都係 reading 咁囉。

Q：咁即係佢地講同實質既唔一樣既。你地兩位無咩特別要加啦？重有無其他野？無啦，好。真係好多謝你地寶貴既時間呀。

我現在終止錄音。



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