A COMPARATIVE STUDY OF STUDENTS' PERCEPTIONS AND THEIR USE OF PEER LEARNING ACCORDING TO SELECTED DEMOGRAPHICS IN THE GRADUATE SCHOOL OF BUSINESS, ASSUMPTION UNIVERSITY OF THAILAND

Sina Sobhanian

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of MASTER OF EDUCATION in Curriculum and Instruction Graduate School of Education ASSUMPTION UNIVERSITY OF THAILAND 2015
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in Curriculum and Instruction

Graduate School of Education

ASSUMPTION UNIVERSITY OF THAILAND

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Peer learning has been shown to be one of the most effective strategies for improving students’ learning, boosting motivation, and strengthening friendship. The cognitive process of teaching others can also enhance the person’s own understanding and helps retain the knowledge in long term memory. The present study aimed to investigate the students’ perceptions and their use of peer learning. It was also intended to compare the differences according to the variables of age, gender, nationality, and employment status. The researcher used questionnaire as the main instrument for data collection and the participants were 265 students from the Graduate School of Business, Assumption University of Thailand. Findings indicated that the students had positive attitudes towards peer learning. A majority of the respondents agreed that peer
learning has various academic, cultural, and psychological advantages. It was also found that there were significant differences among the students’ perceptions towards peer learning according to their gender and employment status. There were, however, no significant difference in terms of the respondents’ age groups and nationality. At the same time, the students affirmed that they often use peer learning in different aspects of their academic life. With regard to the use of peer learning, there were significant differences according to the students’ gender, nationality, and employment status. Yet, for the variable of age, no significant difference was found. The research concluded with recommendations for the instructors and administrators to implement this strategy more effectively.
ACKNOWLEDGEMENTS

I would like to express my deepest appreciation to all who helped and supported me during the course of this study. First of all, I am greatly indebted to express my profound sense of gratitude to my advisor Dr. Yan Ye. It was her insightful advices and continuous encouragement and patience that enabled me to overcome the difficulties and complete the steps of my research.

I would also like to convey my sincere thanks and gratitude to Asst. Prof. Dr. Richard Lynch and Assoc. Prof. Dr. Suwattana Eamoraphan for their valuable and critical feedback and comments which have enormously contributed to my research. I am truly honored to have had them as my professors and the committee members.

My appreciation is extended to the Asst. Prof. Dr. Sirirat Petsangsri for taking the time to review my paper and providing additional feedback.

I wish to acknowledge my gratitude to Dr. Sangob Laksana, Dean of GSOE, for his support to facilitate the process of data collection as well as his important comments to improve the validity of my research questionnaire.

I am truly thankful to Dr. John Arthur Barnes, faculty member of the Graduate School of Business for his suggestions on my questionnaire and for his encouragements throughout my research.

My thanks are due to Dr. Surapee Sorajjakool, faculty member of the Graduate School of Education, for her assistance on validating the research questionnaire.

I am greatly appreciative of the staffs in the Graduate School of Education, Mr. Nikom Rord-Kwan and Mrs. Niti Sampat for always being available to help me.
Finally, I would like to extend my sincerest thanks to my parents for their encouragement, financial and moral support.

On the whole, my work is indebted to God for giving me the potential and determination to complete my study.
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CHAPTER I

INTRODUCTION

This chapter provides the introductory information of the research which includes background of the study, statement of the problem, research questions, research objectives, research hypothesis, theoretical framework, conceptual framework, scope and limitation of the study, definition of terms, and finally significance of the study.

Background of the Study

The increasing importance of higher education and growing global demand for that has brought more expectations for colleges and universities around the globe. It has also led to the emergence of more private universities which are responsible for their own funding. To respond to these increasing expectations and to be able to survive in this competitive world, universities try to implement all the measures to satisfy the students and their families. Providing effective teaching and learning methods which can produce comprehensive and continuous learning are the initial expectation from any university (Miller & Kohler, 1993). They must ensure brighter future for the students as successful citizens, leaders and workers of their society. Considering all the outcomes, academic performance remains the major determinant of students’ success (Blackorby, Chorost, Garza, & Guzman, 2003). While most teachers and administrators are aware of the effectiveness of various strategies, they often fail to implement them because of different kinds of constraints.
One of the approaches which can significantly facilitate students’ achievement and in the meantime overcome the constraints is peer learning (Horvath, 2011). It can be defined as “an economical means of providing individualized, intensive instruction for academically needy students” (Fuchs, Mathes, & Simmons, 1997, p.179). It helps students in terms of knowledge, skills, attitudes and confidence. In this strategy, learning happens through active help and support from similar status companions and not from professional teachers (Topping, 2005). Since there is no solid role for teacher and student among peers, the tutor peer can sometimes take the role of the learner (Henning, Weidner, & Marty, 2008). This mutual learning has given a significant importance to peer learning. Several studies demonstrate that this type of learning results in increasing achievement of both tutee and tutor and interestingly it is the tutor who gets more benefits (Bargh & Schul, 1980; Greenwood, Carta & Hall, 1988; Slavin, 1996).

Apart from academic impacts, peer learning has various social benefits for the students. It requires that both parties explain the concepts to each other and therefore improve their communication skills. Topping (2005) states that peer learning can enhance key communication skills of listening, explaining, questioning, speculating and hypothesizing (Topping, 2005).

As a graduate student in the field of curriculum and instruction, the researcher has always been interested in finding the strategies which can foster students’ success. Based on personal experience as well as an extensive body of research documents, peer learning has been shown to be an effective instructional strategy. It is widely used in the United States and some other developed countries and benefits both students and instructors in various ways. Despite all the benefits, a very few studies have been done in this area in Assumption University of Thailand.
This inspired the researcher to take the first step and start his research on students' perceptions and practices of peer learning. The researcher believes that implementation of this strategy will be even more advantageous in this university as we face increasing diversity of students which has widened the knowledge gap among them. At the same time, the number of students in each class is rather high to allow the instructors to adjust their lectures according to individual students' needs. Peer learning as a supplementary strategy would provide all the students with the opportunity to be actively engaged in the process of learning.

Statement of the Problem

In recent years, there has been a surge of interest in studying abroad and many students prefer to pursue their higher education in overseas universities or at least in recognized international universities in their home countries. This popularity is, for the most part, due to the increasing importance of higher education in today's society. Students who have got higher attainments in education are more likely to confront the major problem of unemployment and earnings (Card, 1999). This usually goes along with a greater sense of achievement, job satisfaction, and social participation (Oreopoulos & Salvanes, 2011). At the same time, studies demonstrate a close relationship between institutional quality and level of internationalization (Jang, 2009).

Despite all the benefits of higher education and the fact that prestigious international universities can prepare the ground for more achievements, there is no guarantee of success for everyone. While the students are provided with the opportunities to experience a multi-cultural environment and expand their global competencies, they may face several challenges in their academic life. These are
usually caused by lack of language proficiency, different teaching styles, different background knowledge, and achievement levels. Generally, the official medium of the target university is considered a foreign language for most of the students and it is usually their first experience to study in another language. At the same time, these students may experience totally different teaching styles from what they had in their own countries (Kee & Wong, 2004). Still the problem is not limited to the language and teaching styles, as there might be a large difference among students of different nationalities in terms of their background knowledge and achievement levels. Coming from different countries and thus different educational systems, the students have different levels and qualities of background knowledge (Calvet, Estelles, Cambra-Lopez, & Torres, 2009). Among all these challenges, however, language is usually considered by the students themselves as the most important factor (Sawir, 2005). They often face difficulties in understanding the lectures as well as the content of the textbooks which is usually accompanied by lack of confidence to ask their questions. Moreover, the problem is even more serious when it comes to academic writing in higher levels where the students are unable to complete their theses or dissertations.

Assumption University of Thailand as a leading international university in the region may face similar problems. With an increasing number of students, most of who are from Asian countries, the need for effective supplementary tutoring is becoming even more crucial. The researcher believes that disregarding the issue will have a negative impact on university, teachers and students. Inability to understand the lectures and fulfill the assignments will create anxiety for students which will finally affect their motivation and achievements (Zakaria & Nordin, 2007). It will also prevent teachers from successfully implementing their lesson plans. Eventually, all this underachievement may damage the reputation of the university.
Research Questions

1. What are the students’ perceptions towards peer learning in the Graduate School of Business, Assumption University of Thailand?

2. To what extent do the students use peer learning in the Graduate School of Business, Assumption University of Thailand?

3. Are there any differences among the students’ perceptions towards peer learning according to their age, gender, nationality, and employment status in the Graduate School of Business, Assumption University of Thailand?

4. Are there any differences among the students’ use of peer learning according to their age, gender, nationality, and employment status in the Graduate School of Business, Assumption University of Thailand?

Research Objectives

1. To survey the students’ perceptions towards peer learning in the Graduate School of Business, Assumption University of Thailand.

2. To determine the extent to which the students’ use peer learning in their academic activities in the Graduate School of Business, Assumption University of Thailand.

3. To compare the students’ perceptions towards peer learning according to their age, gender, nationality, and employment status in the Graduate School of Business, Assumption University of Thailand.

4. To compare the students’ use of peer learning in their academic activities according to their age, gender, nationality, and employment status in the Graduate School of Business, Assumption University of Thailand.
**Research Hypotheses**

1. There are significant differences among the students’ perceptions towards peer learning according to their age, gender, nationality, and employment status in the Graduate School of Business, Assumption University of Thailand.

2. There are significant differences in the levels to which the students use peer learning in their academic activities according to their age, gender, nationality, and employment status in the Graduate School of Business, Assumption University of Thailand.

**Theoretical Framework**

The theoretical framework for this study includes social and cognitive constructivism. Both theories elucidate the concept of peer learning and the role of peer interaction on cognitive development of the learners (Smith, 2010). They both emphasize the importance of cognitive conflict between peers which would finally result in the cognitive development (Tudge, 2000).

**Social Constructivism**

This theory, which was developed by Soviet psychologist Lev Vygotsky, emphasizes the sociogenetic nature of learning and argues that learning cannot be separated from social context (Vygotsky, 1978, as cited in Aschermann, 2001). He believed that cognitive development of the learners depends on their social environment and that learning takes place through social relationships and interactions between learners (Vygotsky, 1978, as cited in Aschermann, 2001).

Vygotsky introduced two concepts, the Zone of Actual Development (ZAD) and the Zone of Proximal Development (ZPD), to clarify the process of constructing
new knowledge. ZAD refers to the area of the tasks that the learner has gained mastery and can perform independently. On the other hand, there are tasks which are beyond the ability of the learner to perform alone but could be achieved with the help of others. Vygotsky (1978) calls the ZPD the distance between actual development and proximal development, and proposed that it can be filled with the help of a More Knowledgeable Other (MKO). The process of scaffolding by the MKO helps the learners to internalize the social knowledge (Debra, 1992, as cited in Chen, Feng, & Chiou, 2009) and to move to the point that they could perform the tasks independently (Slavin, 2009).

Another concept which is central to Vygotsky’s theory is intersubjectivity. It explains that peers approach a task with different ideas but finally through interaction and cooperation they achieve a shared understanding which is called intersubjectivity (Rommetveit, 1975). Based on this theory, peer interaction improves students’ knowledge in different levels of personal, professional craft, and prepositional knowledge (Donaghy, Carey & Beeman, 1998).

Cognitive Constructivism

According to this theory, acquisition of new knowledge takes place through cognitive organization and adaptation of environmental experiences. Piaget (1952) used the term schema as units of knowledge which form individuals’ perceptions of concepts, objects and procedures. He maintained that schemata are in constant restructuring processes of assimilation and accommodation until they reach equilibrium. Assimilation refers to adding new information into schemata while accommodation is defined as change in the schemata (Piaget, 1952). Piaget assumed that peer interaction creates conflicts in students’ existing schemata and results in disequilibrium. However, through dialogues and discussions with peers who own
similar cognitive status, the new equilibrium with higher understanding is re-created (Piaget, 1959, cited in Fawcett & Garton 2005).

**Conceptual Framework**

The following figure illustrates the main independent and dependent variables which were used in this research.

The researcher surveyed the students’ perceptions towards peer learning, and determined the levels to which they actually use it in their academic activities.

Furthermore, the researcher compared the differences among the students’ perceptions and their use of peer learning according to their demographics which include age, gender, nationality, and employment status.

![Conceptual Framework](image)

**Scope and Limitation of the Study**

This study surveyed the graduate students who were studying in the first semester of the academic year 2014 in the Graduate School of Business, Assumption University of Thailand. It included all the students majoring in any of the four areas of Master of Business Administration (MBA), Master of Management in Organizational
Development (MMOD), Master of Business Administration in Tourism Management (MBA.TRM), and Master of Science in Investment Analysis.

As mentioned earlier, there was no formal peer learning practice in Assumption University of Thailand and the researcher only intends to investigate students’ general opinions and their possible informal practices of peer learning.

Furthermore, as most of the students in the Graduate School of Business are Asians, the results of the research may not reflect the actual difference between western and eastern students’ perceptions towards peer learning.

Finally, the current research investigated peer learning only from the positive perspective.

**Definition of Terms**

*Age* refers to the age group of students in the Graduate School of Business, and has been determined by the item no.2, Part I of the questionnaire.

*Collaborative Learning* refers to the unstructured group works in which students gather to solve a problem and express their viewpoints.

*Cooperative Learning* refers to the structured group works wherein students maximize their own and each other’s specific academic skills.

*Employment Status* refers to the status of the students as either being full-time students or working-students. It has been determined by the item no.4, Part I of the questionnaire.

*Nationality* refers to the nationality of students in the Graduate School of Business, and is categorized into Thai and Non-Thai options. It has been determined by the item no.3, Part I of the questionnaire.
Peer- refers to classmates or senior students who are also studying in the same faculty.

Peer Learning- refers to incidental academic activities in which the students in the Graduate School of Business provide academic assistance to their peers and at the same time learn by teaching.

Perception- refers to the students' attitudes towards different aspects of peer learning. It includes academic, cultural, and psychological benefits of peer learning for the parties involved.

Students- refer to all the students who are pursuing master degree in the Graduate School of Business in the first semester of academic year 2014.

Use of Peer Learning- refers to the levels to which the students adopt peer learning strategy in their academic activities.

**Significance of the Study**

For cultural reasons, Asian students and in particular, Thai students are often passive in the classroom and worry about losing face by making mistakes. They do not usually start discussions or ask questions unless they are required to do so (Buraphadeja & Kumnuanta, 2011). They are generally humble in front of their teachers and pay high respect to them.

Understanding the real status of peer learning in students' academic learning will help the instructors use the instructional methods and activities which include more group work, bring the students closer together and encourage them to learn from their peers. Use of peer learning can also be beneficial for increasing cultural awareness and linguistic knowledge. Thai students can have the chance to communicate with their peers who have higher English proficiency and at the same
time, non-Thai students will be provided with opportunity to learn about Thai culture and language in an authentic environment.

Yet, there are other benefits which can be achieved through peer learning. For instructors, it can be used as a supplement for the formal classroom instruction and make it more effective. In the case of students, proper use of peer learning can ultimately improve students' academic performance and socialization. It could also be advantageous for families as an economic substitute for other kinds of paid tuition. This is more significant for undergraduate students whose educational expenses are mostly supported by their families.

Finally this study can be used as the basis for the future researchers to conduct similar studies in different levels and contexts. It can range from the teacher’s attitudes towards peer learning to the implementation of peer learning practices in the classrooms.
CHAPTER II

REVIEW OF RELATED LITERATURE

In this Chapter the researcher provides further information about the concept of peer learning and reviews other related literature to clarify and justify the current study. It includes historical background of peer learning, its cooperative and collaborative nature, different types of peer learning, advantages and disadvantages of this strategy, and previous studies conducted by other researchers in the similar field. The researcher also maintains the theoretical support and provides a brief explanation on the application of peer learning in the online world.

**Historical Background of Peer learning**

Peer learning is not a new term in the realm of education. It has existed since the beginning of civilization and was probably one of the first pedagogical strategies practiced by ancient societies. In its earliest form, the adolescents instructed their younger siblings to hunt, make fire, and learn about edible roots (Jenkins & Jenkins, 1986). The origins of peer learning in the western world date back to the first century A.D when it started in Ancient Greece and spread over other parts of Europe and finally reached America (Wagner, 1990). According to Topping (1988), the first systematic and organized practice of peer learning started in the 1700s. Other historians, on the other hand, trace the formal practice of peer learning back to the Monitorial System of the nineteenth century (Bland & Harris, 1989).

In the late 18th century, Andrew Bell who was in charge of a military asylum in Madras, implemented peer learning as an effective strategy to educate disadvantaged children (Sylvester & Stuart Maclure, 2006). He divided his school into different classes and placed each student into a specific class based on their
knowledge. Every student had the chance to be promoted to a higher level or be degraded into a lower level according to their performances. The arrangement was in a way that half of the class performed as tutors providing instructional support to the other half. Bell argued that “the very moment you have nominated a boy a tutor, you have exalted him in his own eyes, and given him a character to support” (Bell, 1808, p.12). He observed that peer tutors helped the students who were likely to be downgraded keep pace with them (Dabkowski, 2000).

In 1798, following Bell’s experiment, Joseph Lancaster invented a new system which could provide education for all children regardless of their social class and financial situation. While the system was conducted in very low cost, the quality was largely high. It was not just limited to reading and numeracy but also covered writing skills which was not usual at that time (Hall, 2003). Lancaster aimed to provide the children with a carefully organized training which would bring useful results for them as well as their society. He also based his work on religious aspect of helping the poor children who had “their morals ruined, and talents irretrievably lost to society” (Lancaster, 1807, p.151). He achieved this goal by creating classroom settings in which some of the children were used both for controlling and teaching other children and it became known as the Monitorial System (Hall, 2003). In this system the children with higher knowledge were responsible to assist those who knew less with the guidance of the teacher. The key feature of the Lancasterian system was the very structured and detailed instructional material which helped the monitor students to learn themselves and to help the other students (Dabkowski, 2000).

In the United States, the formal practice of peer learning can be dated back to 1640, when Harvard University hired one of its students to aid and counsel his peers (Dwyer, 1989). Since then, peer learning has been a standard strategy in several
It was in the 1960s when it began to gain more interest and was widely used in many schools and universities (Gordon, 2005). This revival was partly due to the passage of the Education Act of 1965 in the United States. The legislation encouraged the use of effective strategies to improve the academic performance of students. It was also part of the efforts to enhance interracial understandings through students’ closer interactions (Webb, 1987). Bruffee (1984) wrote that students in the 1960’s needed assistance in their academic activities but they were reluctant to ask their instructors for help as they saw it as an extension of traditional learning. Many of the students, however, found peer learning to be an effective alternative to their traditional classroom instructions. Since then, it has been widely used in many schools and universities across the world.

**Cooperative, Collaborative and Peer learning**

Cooperative learning is an effective strategy which helps students improve their knowledge using various group activities. It creates an atmosphere where the students learn themselves and help their group mates learn in easier ways (Balkcom, 1992). It is widely supported by several theorists and practitioners. Vygotsky (1978) described socialization and cooperation as the foundation for learners’ development. His concept of the zone of proximal development explains how the cooperation among peers could lead to their cognitive development. He even goes further by pointing out that peer interactions can create metacognition (Vygotsky, 1978). Piaget (1932) also stressed the importance of interactions and the fact that groups can correct the mistakes. He criticized traditional classrooms which are based on competition and individual work as slowing the cognitive and moral development of the students (Piaget, 1932). Cooperative learning has also been discussed in Bandura’s social
cognitive theory which considers modeling as the main element for development of individuals’ thoughts and motivation (Bandura, 1986). Dewey (1963) also emphasized the importance of cooperative learning. He argued that passive reception of knowledge could not result in intelligent learning. It is only through cooperation that students can find out the purpose of their studies and acquire the needed skills and methods to reach it (Dewey, 1963). Bruner (1990) explained the significance of cooperation in the field of language acquisition. He deemed that using language is more important than being exposed to it. He also maintained that only after certain levels of acquisition of a language could learners expand their knowledge by being a bystander (Bruner, 1990, as cited in Liao, 2005).

Slavin (1995) argued that cooperative learning prompts motivation which would finally result in students’ cognitive development. This motivation arises when the higher ability students are respected and praised for their knowledge and, at the same time, lower ability students also receive respect and encouragement for their efforts to improve their knowledge (Slavin, 1995). The following figure illustrates Slavin’s model for cooperative learning which improves students’ achievements through motivation and socialization.

Figure 2: Slavin’s model of cooperative learning (1995).
Cooperative learning has been supported in Kolb's experiential learning cycle as well. All the stages of experience, observation, conceptualization, and experimentation could take place in cooperative learning setting (Reynolds, 1994). According to Walling (1987), the initial and simple ideas which are discussed in cooperative learning form the more elaborate and sophisticated concepts which could not be achieved only through listening to the lectures. Reynolds (1994) added another advantage for cooperative learning besides the motivational and educational benefits. It is an ideological feature of this strategy which prepares students to enter the democratic society where individuals must work in collaboration and respect to others' ideas. Hansman (2001) pointed that the interactions, tools, and social context are the essential parts for learning.

Collaborative learning is often used as a synonym for cooperative learning. Both names refer to the group activities which aim to accomplish tasks (Rockwood, 1995) and they have their roots in constructivism theory. Though this study is not directly concerned with the two concepts, it would be useful to note that some researchers have defined them as distinct terms. Collaboration is a general activity in which individuals come together and benefit from the abilities and contributions of others while cooperation is a structured activity which facilitates the achievement of specific goals through group work (Panitz, 1997). Rockwood (1995) pointed that the distinction between the two terms lies in the authority of teachers. In cooperative learning the teacher remains in the center while in collaborative learning the students are more empowered to perform open-ended tasks. Cooperative learning makes students interdependent to ensure the contribution from the entire group for achieving the goals. In contrast, collaborative learning stresses the autonomy of members to decide among themselves.
From what has been discussed, peer learning could be classified as a type of cooperative and collaborative learning. Some researchers use the terms interchangeably (Stone, Cooper, & Cant, 2013; Wagner, 1982). But still there are slight differences which might be taken into consideration. In cooperative learning, the students may have the same level of competence and skills and could not perform the task prior to cooperation (Damon & Phelps, 1989). But according to some definitions peer learning is a kind of cooperation in which a more knowledgeable student assists the weaker ones.

The term peer learning which is more commonly used to refer to this instructional strategy is sometimes used under other titles as well. They include peer teaching, partner learning, and learning through teaching (Britz, Dixon, & McLaughlin, 1989). Damon and Phelps (1989) argued that the term cross-age learning describes the strategy better than peer learning as the peers are often few years older than the tutee.

**Different Types of Peer Learning**

Generally, there are two different approaches towards peer learning. One group of educators defines it as an incidental process while others support the structured type. As the name indicates, incidental peer learning occurs on an incidental basis and is not systematically planned: It takes place when students are playing, cooperating, or studying. It can happen in school or any other context where they are socializing. The proponents of incidental peer learning argue that peer learning does not need to be written in a teacher’s plan book, but is part of the teacher’s capabilities to be able to use different methods in spontaneous ways (Vincent & Ley, 1999). Since it occurs in natural situations, it can cover a wide range
of skills. The results of previous research show that language and social skills of student have improved significantly through incidental peer learning (Hart & Risley, 1975; McGee, Krantz, & McClannahan, 1986). It must be noted that even in incidental peer learning there are some elements of structures which are put into place by an experienced teacher. In this regard, the environmental settings and variables play an important role whether to encourage or suppress peer learning among students. Studies indicate that simple classroom arrangement which reinforce group working could result in a spontaneous peer learning. On the other hand, lack of these arrangements could create an environment which encourages competition rather than cooperation. Yet, for novice teachers who lack the advantage of experience, the structured and formally planned peer learning could be a valuable instructional strategy (Vincent, 1999).

Educators supporting systematic and structured peer learning have pointed out some advantages which may not be achieved through incidental peer learning. The foundation of peer learning is generally based on active student response (ASR), opportunity to respond (OTR), feedback, and reinforcement (Heron, Villareal, & Yao, 2006). These features could not be implemented unless they are put into a systematic practice. Secondly, incidental peer learning which is often referred to as assignment-assistance tutoring (Hock, Pulvers, Deshler, & Schumaker, 2001) does not demonstrate the reciprocal nature of peer learning. It takes place only if the tutor student has more knowledge and is also willing to help. In structured peer learning, however, the reciprocal interaction exists in all phases of instruction as well as evaluation. Thirdly, when peer learning is implemented as a system, the teacher provides both the tutor and tutee with all necessary materials and guidelines prior to tutoring (Heron et al., 2006). This explicit training also enables the teacher to oversee
the whole process of instruction. Incidental peer learning, on the other hand, leaves
the tutor students to devise their own methods to assist their partners.

Heron and Harris (2001) argued that if we define peer learning as a
comprehensive strategy which aims to chart, incite, praise and examine the academic
and social skills of the tutor student, incidental peer learning would not reach that
level to fulfill all these elements.

Miller, Baretta, and Heron (1994) created the acronym START to describe
systematic peer learning. It stands for, selection of tutoring format, training the tutor,
arranging the environment, running the program, and finally testing the effectiveness.

In terms of format, peer learning is usually practiced in five different ways
which include classwide, cross-age, home-based, one to one, and small group peer
learning (Miller et al., 1994).

Classwide peer learning involves all the students taking part in tutorial
activities. In this format, every student can experience the role of both tutor and tutee
as they switch their roles after the assigned task is successfully accomplished (Halls &
Stegila, 2003). Since the rewarding system is based on the pair work, both sides are
actively engaged in the process. This system has been used to improve the skills of
disabled, low-achieving, as well as normal students in classroom settings (Delquadri,
advantages for the use of classwide peer learning. The implementation of this system
is simple as it can be practiced in classroom settings. Most of the teachers have also
confirmed the ease of implementing classwide peer learning once they have used it
for math, foreign language and other skills (McKain, 2004). Classwide peer learning
also benefits both tutor and tutee. Meta-analysis conducted by Cohen, Kulik, and
Kulik (1982) showed that the academic performance of both sides as well as attitudes
towards the course improved significantly through classwide peer learning. The improvement was also observed in the other areas of social relations and self-concept (Jenkins & Jenkins, 1981). Individualized instruction is another advantage of this format of peer learning. It increases the efficiency of instructional time and allows both the teacher and the students to work at their optimal level regardless of the class size and knowledge gap (Skinner, Fletcher, & Henington, 1996).

Cross-age peer learning is an effective strategy which provides weaker students with individualized instruction (Schradj & Valus, 1990, as cited in Miller et al., 1996). In this system, which happens in out of class environment, the tutor student is often some years older than the tutee and they usually study in the same school (Heron & Harris, 2001). Studies indicate that both younger and older students gain social and academic benefits through this type of tutoring (Maher, 1984, as cited in Hall & Stegila, 2003). Greenwood, Carta, and Hall (1988) pointed out 3 areas of academic skills, social disciplines, and peer relationship which are improved during cross-age peer learning. Other researchers added more benefits including self-esteem and parenting (Strayhorn, Strain, & Walker, 1993, as cited in Kalkowski, 1995).

The Home-based format usually involves siblings or parents as the tutors. Though there have been few studies in this area, the results shows that family members could serve as effective tutors (Barbetta & Heron, 1991; Elksnin & Elksnin, 1991).

One to one peer learning is another format in which only few students are selected for the task of tutoring (Nobel, 2005). It is usually implemented to improve the academic skills of students and has proven to be an effective strategy for students with diverse needs (Brewer, Reid, & Rhine, 2003). Teachers are often required to provide instruction to a large number of students in each classroom. Harris and
Sherman (1973) noted that the difference in the abilities and skills of students makes it impossible for the teacher to use a single instructional method to meet the needs of all students. Through one to one peer learning the teacher will be able to convey his instruction more effectively and, at the same time, increase the engagement of students (Greenwood, 1991; Olmscheid, 1999, as cited in Stenson, 2013).

Small group peer learning is practiced in two different variations, remedial and rotating groups (Nobel, 2005). Remedial work is used when a group of students need additional tutoring and therefore, they will be provided with extra time to acquire the skills and knowledge through group work. In rotating work, the class is divided into several groups and while the teacher is working with one group the other groups will be engaged in group peer learning. This procedure will rotate throughout the course so that each group will have an equal chance to receive both teacher’s instruction and peer learning (Miller, Barbetta, Drevno, Martz, & Heron, 1996). Group work tutoring, which is applicable in a variety of contexts, accomplishes two valuable results. First, the students will get deeper and broader knowledge by hearing different viewpoints and having their own ideas critiqued. Second, new favorable behaviors emerge as the result of commitment to group works and decisions (Olmstead, 1974).

**Theoretical Support**

**Social constructivism**

The main theme in Vygotsky’s social constructivism theory is that individuals construct and develop their cognition through social interactions. He believed that all learning is the result of social and cultural experience which takes place through interaction with the environment (Gonzales & Willems, 2012). Since the tools and values differ from culture to culture, the level and content of learning is unique for
each individual (Woolfolk, 1998). Vygotsky proposed the notion of an internalization process in which he believed the intrapychological aspect of development is closely linked to interpsychological activities (Frawley, 1997). He emphasized that cognitive development could not precede socialization but it is the social interaction which will lead to actual development (Blake & Pope, 2000). Leont’ev (as cited in Frawley, 1997) describes the process as internal state of consciousness which goes far beyond a simple copying. To clarify the process of internalization, Vygotsky introduced his concept of the Zone of Proximal Development (ZPD) which emphasizes the importance of peer interaction. He observed that peers could create scaffolding behaviors which enables the learners to perform the tasks that they have not yet mastered. It happens when the More Knowledgeable Other (MKO) modifies certain tasks and assists the less capable learner to accomplish those tasks. Vygotsky defines it as buds of development before turning into the actual development (Vygotsky, 1978). Though the MKO is traditionally thought of as a teacher, parents or any older adult who has more knowledge on a specific area, it is the peer which can best represent the title. The principal of intersubjectivity which is the core of the ZPD can be accomplished more effectively among peers than older adults (Donaldson, 1987). Vygotsky concluded that all the questions and discussions which occur through peer interactions are essential elements for the cognitive development of the learners.

**Cognitive Constructivism**

The concept of peer learning is also supported by the theory of Jean Piaget which has been termed as cognitive constructivism. He believed that learning is the result of a cognitive process which enables the learners to create connections between their prior knowledge and the new findings which come through experiences or relationships (Garner, 2008). He used the terms assimilation and accommodation to
explain the process in which the internal schemas of people are formed. Assimilation takes place when the new information fits and thus is added to the preexisting cognitive structure while accommodation requires change in the schemas themselves in order to account for the new and contradicted information (Piaget, 1955). According to Piaget, equilibrium, which refers to the balance between internal schema and the external world, is the ideal state for cognitive development (Blake & Pope, 2008).

Piaget considered peer learning as a crucial means of intellectual, emotional and social development. Based on his theory, the new belief which emerges during peer interaction is close enough to the existing belief and therefore it is more likely to reach equilibrium (Foot & Howe, 1998). He distinguished between peer relationship and adult-child interaction as he noted that “the very nature of the relationship between child and adult places the child apart, so that his thought is isolated” (Piaget, 1932, p.32). He describes most adult-child relationships as heteronomous where the child has to follow the ready-made rules assigned by adults. Piaget warned that this kind of mindless obedience would affect intellectual and moral development of the learners. In contrast to the dominant/submissive relationship is one of cooperative interaction. This type of constructive relationship is usually seen among peers and equals where they share the same goals and receive the approval of others (Tanabe, 1997). Though it is not impossible, it is really difficult for adults to create the mutual trust and affection even if they minimize the authority and coercions (DeVries, 1969).

Social Cognitivism

Albert Bandura considered observation and modeling as the key elements of learning (Bandura, 1977). In his social cognitive theory he tried to explain how individuals’ behaviors, thoughts and feelings are influenced by observing others.
While sharing some ideas of behavioral theories he put more attention on cognitive factors involved in observational learning. He stated that humans are capable of learning not only from actual experience but also from observation. This vicarious process is significant as it can convey the patterns quickly without the risk of mistakes (Bandura, 1986). He also believed that observation does not necessarily have to be intentional. Most of the incidental observations during a course of other work could be acquired by the learners (Bandura & Huston, 1961). Bandura and Jeffery (1973) described observational learning as an input-output process which takes place through four steps of attention, retention, reproduction, and motivation.

He coined the concept of “self-efficacy” and defined it as one’s beliefs about his capabilities on performing a certain task. A high level of self-efficacy encourages people to approach difficult tasks rather than avoiding them and sustains their efforts after failures. It also fosters intrinsic motivation and level of concentration (Bandura, 1994). Cognitive theorists have identified mastery experience, vicarious learning, verbal persuasion, and emotional arousal as the major sources which can create and strengthen self-efficacy (Zimmerman, 2000; Linnenbrink & Pintrich, 2002). Among these sources, vicarious learning, which is a main conception of Bandura, can be easily practiced through peer learning. Seeing the success of peer models, which the learners consider similar to themselves, will encourage them to try the same task. Although adults and teachers can play the model role but observing peers models are more effective and leads to the greater sense of self-efficacy (Schunk & Hanson, 1985). Consequently a greater sense of self-efficacy will result in higher levels of motivation which is the crucial part of vicarious learning.
Advantages of Peer Learning

Peer learning has always been supported by many educators as an effective and theoretically sound method of supplementary instruction. The benefits of peer learning are not merely limited to the tutees but they cover all the educational system including the tutor students as well as teachers. Goodlad and Hirst (1989) identified four main benefits of peer learning for the tutee students. They include additional teaching, individualized instruction, better opportunities to respond, and finally closer friendships. Ehly and Larsen (1980) argued that students feel less stressed to work with peers than the teachers or consultants. This prepares the ground for more feedback and correction which arises from more mistakes (Greenwood, Delquadri, & Hall, 1989). Though peer tutors may not possess extensive knowledge, they have one advantage over professional teachers. Being cognitively closer to the tutees, peer tutors are often able to more easily perceive the difficulties of the tutees and offer more constructive strategies to solve their problems (Allen & Feldman, 1973). The process of clarifying, exemplifying and simplifying would, at the same time, help the cognitive development of the peer tutor (Topping 1996).

Peer learning develops students' social skills and attitudes as well. It helps them overcome shyness, reduces isolation, and creates positive attitudes towards schools (Fitz-Gibbon, 1992). It will also improve the tutor’s patience, motivation, and attitudes towards other peers (Ginsbug-Block & Fantuzzo, 1997). Better social communications, praising, and smiling are among some of the skills which could develop during peer learning (Maheady & Sainato, 1985; Scruggs & Richter, 1988). Washburn (1975) argued that peer learning creates a natural condition in which the learners could identify their emotions and goals. It is also recommended strategy to
improve classroom management by encouraging cooperation and reducing peer conflicts (Greenwood, Carta, & Hall, 1988). Fitz-Gibbon (1988) proposed that giving responsibility to disruptive students could improve their attitudes and respect towards teachers and other students.

Politically speaking, peer learning empowers students to be independent and develop critical thinking instead of imitating their teacher and becoming passive recipients (Topping, 1996). It has also been proved to be an effective method in multicultural classes as it reflects cultural values and diversity and improves the relationship between students of different ethnicities (Ashley, Zahniser, Jones, & Inks, 1986). It can, moreover, enhance the use of the mother tongue and preserve language diversity.

Topping (1996) emphasized the efficiency of peer learning as a method which can help achieve more with fewer resources. It is mostly helpful for the teachers coping with large classes without sufficient resources. He also pointed out that tutors enhance their “Learning by Teaching” (Topping, 1996, p. 324) which will develop higher order thinking skills (Buraphadeja & Kumnuaanta, 2011).

Developing metacognitive skills is another benefit which can be achieved through peer learning. It is one of the key factors which prepares students for self-regulated and independent learning (Efklides, 2008). Peers tend to regulate their own learning and check each others’ progress while they are engaged in a collaborative learning environment (Hurme, Palonen, & Järvelä, 2006; Volet, Vauras, & Salonen, 2009).

Furthermore, peer learning has positive effects on students’ self-concept (Miller, Topping, Thurston, 2010). It is defined as individuals’ perception of
themselves and it stems from interpersonal and intrapersonal activities and comparisons (Marsh, 1986). Brookover & Lezotte (1979) considered self-concept as essential part for personal, social, and professional performance of the students. Positive self-concept can also foster attendance, participation and task completion (Green et al., 2012).

Peers can also be involved in the process of assessment. Boud and Falchikov (2007, as cited in Thomas, Martin, & Pleasants, 2011) argued that the ability to evaluate one’s performance is vital for the learners’ development. The related literature also shows that the students view peer assessment as being helpful for their self-efficacy, problem solving skills, and responsibility.

**Previous Studies on Peer Learning**

The concept of peer learning is one of the areas of interest among many researchers in the field of education. There have been extensive research studies investigating the effectiveness of using peer learning in different levels and subjects. Most of these studies have revealed positive outcomes in the academic and social development of students. The researcher has selected some of the previous research findings as further evidence for the validity of this study.

Celis (2013) conducted research to find out the effectiveness of peer learning in English writing skills of the students in a public university in Colombia. The results revealed that implementation of peer learning not only helped students’ writing skills but improved their oral production as well. He also found out 3 advantages which include self-confidence, extra help, and better group work.

Tatsumoto (2011) studied low achieving students’ perception towards peer cooperation in EFL classrooms in a Japanese university. The results indicated that
students perceived peer cooperation to have a positive influence on their level of expectancy, motivation, and achievement.

In the area of mathematics, Pigott, Fantuzzo, and Clement (1986) conducted research on the effects of peer learning on underachieving students’ arithmetic performance. The results showed improvements to the degree that low achieving students’ performance was indistinguishable from high achievers.

Another study conducted by Lee (2003) in a secondary school in Hong Kong studied the effects of classwide peer learning on students’ mathematics performance as well as the students’ perceptions towards such learning strategy. The score results before and after the intervention showed positive effects on students’ academic performance. Most of the students also confirmed positive attitudes towards peer leaning and found it as an easy and effective strategy.

To observe the impact of cooperative learning on students’ perceptions towards their peers, Alexander, Lindow, and Schock (2008) conducted a case study on a group of physical assistant students. The results proved that both the students and instructors regarded peers as being helpful. They also suggested that learning from peers could enhance the students’ critical thinking and engagement in the course.

Majid and Tina (2009) investigated the perceptions of 200 post-graduate students towards effectiveness of peer learning in Nanyang Technological University in Singapore. Most of the respondents preferred cooperative to individual work and they were more eager to work with those students they already knew. They also confirmed peers to be supportive, considerate, knowledgeable, and having positive effects on their tasks.
Cheng and Ku (2008) investigated the effects of peer learning on students' achievement and attitudes in an educational technology course in the University of Northern Colorado. Though the results of the research did not show a significant difference in students' achievement, in terms of attitudes, students found it as a useful strategy which provided a comfortable environment to work in groups and increased the opportunity to receive extra feedback and knowledge sharing.

Use of peer learning has also been studied by Wills, Deremer, McCauley, and Null (1999) in the introductory computer science curriculum. The project included use of different types of peer learning in different settings. The results suggested that peer learning is a valuable strategy which should be used as a pedagogical approach in teaching computer science.

There have also been comparative studies on students' perceptions and use of peer learning according to their demographic backgrounds. Wen and Tsai (2006) studied students' perceptions towards peer assessment in a university in Taiwan. Despite the fact that the students had generally positive attitudes towards peer learning, there were differences among female and male students' perceptions. Similar studies conducted by Wright (2003) and Rodger, Murray, and Cummings (2007) have found gender difference among the students' perceptions towards peer learning.

**Peer E-Learning**

While peer learning is traditionally practiced in physical classroom settings, it can easily be adapted to virtual classes and provide even more benefits for the students.
Online learning, which is often referred to as e-learning, has gained increasing popularity among schools as well as students. It provides a unique opportunity for the learners to engage in a dynamic and interactive education beyond the limitations of time and distance (Wagschal, 1998). Despite all this popularity, however, the current methods used in e-learning often lack the features to create a cooperative and interactive environment among the learners. The first concern is that these methods operate in the same way as traditional classrooms where the teacher is at the center and the students are passive recipients. It also requires teachers to spend further time coordinating with each individual student. Secondly, they often lack any mechanism to allow the students to cooperate among themselves. Finally, the feedback system is usually based on pass/fail records and does not assess the actual skills which have been acquired (Fong, 2005).

Peer e-learning could be an effective method to develop the potential of E-learning and improve the inefficiency of traditional methods. It could create constructive interaction between the teacher and students as well as among the learners. Furthermore, it will improve interpersonal skills of students which are usually undermined in virtual settings (Light & Cox, 2001). Finally, the students find it more appealing to learn through peer discussions and interactions rather than listening to the lecturers or downloading files (Biggs, 1999).

One of the approaches which can provide a framework for peer learning in the E-learning context is discussion forums (Garrison, 1997). This type of instruction has seen an upward trend in higher education as it is time saving, engaging, and pedagogically sound. It also deepens the learning by providing a central role to the students.
As shown in the Figure 3, a student who has more knowledge on the topic and who prepares an essay about it takes the role of content expert and facilitator. In this approach most of the activities are conducted by the students themselves and the teacher serves as a supervisor. Rourke & Anderson (2002) regarded this approach as a way to improve learning outcomes as well as increase involvement of the students.

![Figure 3. Student centered peer e-learning environment (Harris & Sandor, 2007).](image)

**Possible Disadvantages of Peer Learning**

Most of the previous research on peer learning is concerned with the effectiveness and positive points of this instructional strategy. There are, however, some critiques which point out some of the potential disadvantages of peer learning.
The mastery of knowledge and quality of instruction by a peer tutor might be inferior to the professional teacher (Topping, 1996). It is also argued that it could prevent students from reaching an optimal level of learning (Lee, 2003).

Generally, the effectiveness of peer learning stems from correct and systematic use of this strategy. The role of students should be defined clearly, and the accuracy and progress of the programs needs to be monitored regularly (Greenwood et al., 1995). Maheady (1998) argued that this type of training and ongoing evaluation is a time-consuming process which is less possible to be implemented in conventional classes. In other words, for peer learning to be successful the teacher must observe the peer interactions, collect data on their academic performance and review the results on a regular basis. The literature, however, indicates that in many cases teachers fail to implement the procedure correctly which results in instructional disruption (Maheady, Harper, Mallette, Winstanley, 1991).

Lack of balance between the pace of learning in teacher-led instruction and peer-learning is another potential disadvantage which has been stated by some practitioners (Maheady, 1998). In formal classrooms, teachers are usually obliged to cover certain amount of content within a specified period. Despite the fact that peer-learning provides in-depth learning with higher mastery level, it may sometimes slow down the pace of teacher-led instruction.

Greenwood et al. (1995) and Maheady (1998) pointed out further concerns in terms of ethical accountability, competence, and consent. Focusing on students with lower ability may neglect peer tutors and affect their academic activities in a negative way. At the same time, lower ability students could lose their self-esteem for being tutored all the time. With regard to peer competence, it must be ensured that peer tutors have enough capacity to carry out tutoring. Any failure to fulfill their
responsibilities, will lead to a negative reaction or even rejection from the tutees. Students’ consent is another topic which must be taken into consideration while implementing peer learning. Students should always be reminded of the positive effects of this strategy on their academic life as well as relationship with other students. Their right to refuse it, however, must be respected if they do not find it useful.

Traditionally, there is a belief that only professional teachers and adults can transfer knowledge to the students (Damon & Phelps, 1989). This ideology can create concerns and dissatisfaction among parents whose children are being tutored by peers. The consequence of parental discontent is usually transferred to the students and affects their interests and commitments towards peer learning (Schreiner, 2011).

In a study conducted by Morris and Turnbull (2004), nursing students who were appointed as peer tutors were uncomfortable and anxious about their responsibility. They either found themselves unprepared for such activity or considered it as a task which could negatively affect their own academic performance (Feingold et al., 2008; Morris & Turnbull, 2004).

Background of Assumption University of Thailand and the Graduate School of Business

The history of Assumption University dates back to 1885, when the Rev. Father Emile Colombet established Assumption College to meet the educational needs of Thai students. The school managed to expand and become more recognized as it received contributions from the royal family and noblemen. In 1901, the administration of AC was delivered to five missionaries of the Montfort Brothers of Saint Gabriel, a French Catholic foundation devoted to educational activities.
It was in 1969, when the Business School of Assumption Commercial College was upgraded as an autonomous institute of higher education under the name of Assumption School of Business. The school was the first of its kind in Thailand to offer business studies using English as the medium of instruction. It started its activity with enrolment of 61 students and it received its first international student from Hong Kong (Chatelier, 2007).

The name ASB was changed into Assumption Business Administration College (ABAC) when it was officially accredited as a degree-granting college by the Royal Thai Ministry of Education in 1975. Finally in 1990, the school was once again upgraded as Assumption University of Thailand (History and Background, n. d).

Today the university offers various undergraduate and graduate programs including Biotechnology, Business Administration, Education, Engineering, Law, Nursing and other fields of Arts and Sciences. It is also a leading provider of E-learning in the country. The latest survey conducted by the Office of the Higher Education Commission indicates that Assumption University has the highest number of international students in Thailand and Business Administration is the most popular field of study (Foreign Students in Thai Higher Education Institutions, 2010).

The Graduate School of Business, Assumption University was established in 1985 with efforts and initiatives of Bro. Dr. Prathip Martin Komolmas, the current president emeritus of the university. It started its activity by launching an evening Master of Business Administration (MBA) program with 33 students enrolled. In 1997 and 2001, the school respectively integrated its second and third programs as Master of Management in Organizational Development (MMOD) and Master of Business Administration in Tourism Management (MBA.TRM). In recent years, the new Master of Science program in Investment Analysis has been offered by the
school, making up a total of four master degree programs. In addition, GSB manages two Doctoral programs which are PhD in Organizational Development and PhD in Hospitality and Tourism Management (Graduate School of Business, 2013).

**Summary**

Peer learning is one of the first methods which has been used for teaching and learning. In the ancient societies, learning from peers was a common way of transferring knowledge from one generation to another. Formal use of peer learning, however, dates back to the 18th century. It was probably the practices of Andrew Bell and later on Joseph Lancaster that introduced this strategy into the educational systems. The concept of peer learning is widely discussed in the theories of Vygotsky, Piaget, Bandura, and others who support cooperative and collaborative learning. This instructional strategy is usually practiced in different formats of classwide, cross-age, home-based, one to one, and small group peer learning. Furthermore, it can take place either in incidental or systematically structured forms. Review of the related literature indicates that peer learning has various benefits for the students as well as the teachers. Most of the previous research suggests that peer learning is an effective and highly preferred method by the students.
CHAPTER III

RESEARCH METHODOLOGY

In the previous chapters the researcher provided introductory information about the current study and reviewed some related literature regarding the topic. In this chapter the researcher further explains the process of providing data in order to answer the research questions. It includes research design, research population, instruments, process of collecting data, and statistical methods for analyzing the collected data.

Research Design

This was a quantitative study which intended to investigate the students' perceptions towards peer learning and to identify the levels to which they use peer learning in their academic life in the Graduate School of Business, Assumption University of Thailand. In the second step it aimed to compare differences among the students’ perceptions and their use of peer learning according to the variables of age, gender, nationality, and employment status. The researcher used a questionnaire and employed both descriptive and inferential statistics to analyze the collected data.

Population and Sample

The population of this study included all the students who were enrolled in any of the master degree programs in the first semester of academic year 2014 in the Graduate School of Business, Assumption University of Thailand. Based on the data collected from the registration office of the Graduate School of Business, the total number of students was 850. The researcher used convenient sampling technique
according to the guidelines of Krejcie and Morgan (1970) and selected 265 students as the sample for the study. The details of population and sample are shown in Table 1.

Table 1

*Population and Sample of the Study*

<table>
<thead>
<tr>
<th>School</th>
<th>Population</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Graduate School of Business</td>
<td>850</td>
<td>265</td>
</tr>
<tr>
<td>Assumption University of Thailand</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The rationale for selecting the students from the Graduate School of Business was mostly for the higher diversity of students’ population. As one of the objectives of this study was to compare differences of the students’ perceptions towards peer learning according to their nationalities, the researcher believed that the Graduate School of Business had more potential to make the current study more reliable.

**Research Instrument**

The researcher constructed a questionnaire as the primary means of collecting data for the current study. The items have been developed based on the theories of social constructivism, cognitive constructivism, and social cognitivism which were widely discussed in Chapter 2. They include Vygotsky’s concepts of the ZPD, the MKO, and intersubjectivity, Piaget’s principle of equilibrium, and Bandura’s concepts of self-esteem and self-efficacy. At the same time, some items have been adopted from the studies of Majid and Tina (2009) and Lee (2003) who also conducted similar studies to the current research.
The questionnaire consists of three parts: demographics, perceptions of the students towards peer learning, and the levels to which they use peer learning in their academic activities. More detailed information for each part is presented below:

**Part 1:** This part aimed to identify demographic information of the respondents. It includes variables of gender, age, nationality, and employment level. The options for each variable were as follows:

- Gender: Male, Female
- **Age:** 20-25, 26-29, 30-35, over 35
- Nationality: Thai, Non-Thai
- Employment Status: Working, Not working

**Part 2:** This section consists of 15 items which have been developed by the researcher to survey the students' perceptions towards peer learning. The respondents were asked to rate their agreement levels in each item which are organized in a five point Likert Scale format. The researcher has then interpreted the responses as follows:

*Table 2

<table>
<thead>
<tr>
<th>Agreement Level</th>
<th>Scale</th>
<th>Score</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>5</td>
<td>4.51 - 5.00</td>
<td>Very Positive</td>
</tr>
<tr>
<td>Agree</td>
<td>4</td>
<td>3.51 - 4.50</td>
<td>Positive</td>
</tr>
<tr>
<td>Neither Agree nor Disagree</td>
<td>3</td>
<td>2.51 - 3.50</td>
<td>Neutral</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
<td>1.51 - 2.50</td>
<td>Negative</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>1</td>
<td>1.00 - 1.50</td>
<td>Very Negative</td>
</tr>
</tbody>
</table>
Part 3: The last section of the questionnaire consists of 15 items which aimed to survey the extent to which the students use peer learning. The selection format was arranged in a five point Likert Scale and the responses were interpreted according to the frequency levels. The interpretation of responses was as follows:

Table 3

Interpretation of Part 3 Questionnaire

<table>
<thead>
<tr>
<th>Agreement Level</th>
<th>Scale</th>
<th>Score</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>5</td>
<td>4.51 - 5.00</td>
<td>Always</td>
</tr>
<tr>
<td>Agree</td>
<td>4</td>
<td>3.51 - 4.50</td>
<td>Often</td>
</tr>
<tr>
<td>Neither Agree nor Disagree</td>
<td>3</td>
<td>2.51 - 3.50</td>
<td>Sometimes</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
<td>1.51 - 2.50</td>
<td>Rarely</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>1</td>
<td>1.00 - 1.50</td>
<td>Never</td>
</tr>
</tbody>
</table>

Validity and Reliability

As mentioned above, the researcher constructed the questionnaire by himself and therefore, it could not be immediately used as a valid and reliable tool for collecting the data. In this regard, the researcher asked three experts to assess the draft questionnaire in terms of grammar, content, and construct validity. The expert panel consisted of three faculty members from the Graduate School of Education and the Graduate School of Business, Assumption University of Thailand. They all hold doctorate degree with many years of teaching experience (See Appendix B). According to their comments, some parts were modified, added, and grammatically corrected.
Once the validity of the questionnaire had been approved by the experts, the researcher did a tryout of the questionnaires involving 20 students from the Graduate School of Education who have had the similar characteristics to the main population of the study. The tryout aimed to compute the Cronbach’s coefficient alpha in order to assess the internal consistency of the instrument.

Additionally, the researcher re-computed and reported the internal consistency of the questionnaire after conducting the main survey on the target population. The Table below illustrates the measurements for the Cronbach’s coefficient alpha of the questionnaire.

Table 4

Reliability of the Questionnaire

<table>
<thead>
<tr>
<th>Reliability</th>
<th>Questionnaire</th>
<th>Coefficient Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tryout</td>
<td>Part II</td>
<td>.69</td>
</tr>
<tr>
<td></td>
<td>Part III</td>
<td>.70</td>
</tr>
<tr>
<td>Main Study</td>
<td>Part II</td>
<td>.81</td>
</tr>
<tr>
<td></td>
<td>Part III</td>
<td>.76</td>
</tr>
</tbody>
</table>

Collection of Data

After the processes of validity and reliability of the questionnaire had been evaluated, the researcher conducted the main survey in the following procedure:

In the first step the researcher asked for a recommendation letter from the Dean of the Graduate School of Education to the Dean of the Graduate School of Business in Assumption University of Thailand to grant permission for conducting the current research. Once the request had been approved, the researcher started to distribute the questionnaires among the target population. In order to speed up and
facilitate the task, the researcher personally distributed the questionnaires with the assistance of some instructors and peers. The researcher obtained 265 completed questionnaires which accounted for 100% of the sample.

The following Table presents the timeline for the data collection.

Table 5

*Timeline for the Data Collection*

<table>
<thead>
<tr>
<th>Steps</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content Validation of draft questionnaire</td>
<td>August, 2014</td>
</tr>
<tr>
<td>Tryout of the validated questionnaire</td>
<td>September, 2014</td>
</tr>
<tr>
<td>Distribution of the questionnaires</td>
<td>September- November, 2014</td>
</tr>
</tbody>
</table>

*Data Analysis*

The collected data was analyzed with the use of descriptive and inferential statistics. The researcher employed statistical software as the tool for data analysis.

In order to organize the collected data, the demographic backgrounds of the respondents which included age, gender, nationality, and employment status were identified using frequency and percentage distribution.

For objective number 1, the researcher used Means and Standard deviation to survey the students’ perceptions towards peer learning.

For objective number 2, Means and Standard deviation were used to determine the level to which the students use peer learning in their academic life.

For objectives number 3 and 4, the researcher applied inferential statistics to compare the differences of the students’ perceptions and their reported use of peer
learning according to their gender, age, nationality, and employment status. Inferential
statistics also aimed to examine the research hypotheses.

For this purpose two statistical methods of one-way analysis of variance (ANOVA) and Independent Samples t-test were used to treat the collected data.

Based on the questionnaire, for the variable of age which consisted of more
than two groups, one-way analysis of variance (ANOVA) was an appropriate method.
One the other hand, for the variables of gender, nationality, and employment status
which only provided two options, Independent Samples t-test was implemented.
## Summary of the Research Process

<table>
<thead>
<tr>
<th>Research Objective</th>
<th>Unit of Analysis</th>
<th>Data Collection Method</th>
<th>Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To survey the students’ perceptions towards peer learning in the Graduate School of Business, Assumption University of Thailand.</td>
<td></td>
<td>Questionnaire (perceptions towards peer learning)</td>
<td>-Mean -Standard deviation</td>
</tr>
<tr>
<td>2. To determine the extent to which the students use peer learning in their academic activities in the Graduate School of Business, Assumption University of Thailand.</td>
<td></td>
<td>Questionnaire (use of peer learning)</td>
<td>-Mean -Standard deviation</td>
</tr>
<tr>
<td>3. To compare the students’ perceptions towards peer learning according to their age, gender, nationality, and employment status in the Graduate School of Business, Assumption University of Thailand.</td>
<td></td>
<td>Questionnaire (perceptions towards peer learning)</td>
<td>- One-way analysis of variance (ANOVA) -Independent Samples t-test</td>
</tr>
<tr>
<td>4. To compare the levels to which the students use peer learning according to their age, gender, nationality, and employment status in the Graduate School of Business, Assumption University of Thailand.</td>
<td></td>
<td>Questionnaire (use of peer learning)</td>
<td>- One-way analysis of variance (ANOVA) -Independent Samples t-test</td>
</tr>
</tbody>
</table>
CHAPTER IV

RESEARCH FINDINGS

In this chapter the results of data analysis are presented. The data were collected and then analyzed in accordance with the research objectives posed in chapter 1 of this study. The fundamental goals of this research were to survey the demographic background of the students, to identify the students’ perceptions towards peer learning, to determine the level to which the students use peer learning, and finally to compare the students’ perceptions towards peer learning according to the selected demographic background in Graduate School of Business, Assumption University of Thailand. As mentioned in the previous chapter, the researcher used questionnaire to accomplish these objectives. The questionnaires were personally distributed among 265 students which comprised 100% of the targeted population. The following figures and tables demonstrate the main finding in this study.

In order to conduct this study, the attributes of the respondents were of great importance. For this purpose, the first section of the questionnaire (see Appendix A) surveyed demographic background of the students in the Graduate School of Business, Assumption University of Thailand.

Demographic background of the respondents

In this study, the demographics of the respondents were limited to gender, age, nationality, and employment status. The researcher used frequency and percentage to represent the data according to the selected variables.
Gender of the respondents

Table 6 presents the number of female and male respondents in this study.

Table 6

*Frequency and Percentage of the Respondents by Gender*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>163</td>
<td>61.5</td>
</tr>
<tr>
<td>Male</td>
<td>102</td>
<td>38.5</td>
</tr>
<tr>
<td>Total</td>
<td>265</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 7 indicates that, out of the total 265 respondents, 163 (61.5%) were females while 102 (38.5) were males. Thus, females were the dominated gender among the respondents.

Age of the respondents

Table 7 presents the age distribution of the respondents in this study.

Table 7

*Frequency and Percentage Distribution of the Respondents by Age*

<table>
<thead>
<tr>
<th>Age group</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-25</td>
<td>105</td>
<td>39.6</td>
</tr>
<tr>
<td>26-29</td>
<td>129</td>
<td>48.7</td>
</tr>
<tr>
<td>30-35</td>
<td>22</td>
<td>8.3</td>
</tr>
<tr>
<td>Over 35</td>
<td>9</td>
<td>3.4</td>
</tr>
<tr>
<td>Total</td>
<td>265</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 7 illustrates that the majority of the respondents (129 students) were between 26-29 years old which accounts for 48.7% of the total population of this study. On the other hand, 105 students (39.6%) were between 20-25 years old. The age group of 30-35 comprised 8.3% of the respondents. Lastly, there were 9 students (3.4%) who were over 35 years old of age.

**Nationality of the respondents**

Table 8 presents the number of the respondents according to their nationality.

Table 8

<table>
<thead>
<tr>
<th>Nationality</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thai</td>
<td>121</td>
<td>45.7</td>
</tr>
<tr>
<td>Non-Thai</td>
<td>144</td>
<td>54.3</td>
</tr>
<tr>
<td>Total</td>
<td>265</td>
<td>100</td>
</tr>
</tbody>
</table>

The table above categorizes the respondents into two groups of Thai and Non-Thai. Herein, it shows that out of the total 265 respondents, 121 (45.7%) were Thai while 144 (54.3%) were Non-Thai. The figures indicate that the number of international students was slightly higher than Thai students.

**Employment Status of the respondents**

Table 9 presents the number of the respondents according to their employment.
Table 9

Frequency and Percentage of the Respondents by Employment

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working</td>
<td>111</td>
<td>41.9</td>
</tr>
<tr>
<td>Not-Working</td>
<td>154</td>
<td>58.1</td>
</tr>
<tr>
<td>Total</td>
<td>265</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 9 suggests that out of the total 265 respondents, 111 (41.9%) stated to be working besides studying while 154 (58.1) did not work. It indicates that majority of the respondents were full-time students. It, however, did not investigate their possible working experience prior to their enrollment in master’s programs.

Research Objective One

The second part of the questionnaire (see Appendix A) aimed to provide the distribution of the perception of the respondents towards peer learning. In this regard, the respondents were given statements through the five-point Likert scale survey-questionnaire to express their level of agreement towards each item. This part of the questionnaire addressed the objective one: To survey the students’ perceptions towards peer learning in the Graduate School of Business, Assumption University of Thailand.

Table 10 illustrates the mean scores and standard deviations of the students’ perceptions towards peer learning from the highest to the lowest.
## Table 10

*Means and Standard Deviations on Students’ Perceptions towards Peer Learning*

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I can understand the explanations and examples of peers easier.</td>
<td>4.08</td>
<td>1.02</td>
<td>Agree</td>
</tr>
<tr>
<td>2. Studying with peers strengthens friendship and trust between students.</td>
<td>4.03</td>
<td>1.06</td>
<td>Agree</td>
</tr>
<tr>
<td>3. Studying with peers increases self-confidence and self-esteem.</td>
<td>4.03</td>
<td>1.02</td>
<td>Agree</td>
</tr>
<tr>
<td>4. Peer learning is a useful strategy to improve the knowledge of the tutor students.</td>
<td>4.01</td>
<td>1.00</td>
<td>Agree</td>
</tr>
<tr>
<td>5. Studying with peers broadens cultural knowledge and understanding.</td>
<td>4.00</td>
<td>1.06</td>
<td>Agree</td>
</tr>
<tr>
<td>6. Peer learning provides assistance to the teachers.</td>
<td>3.97</td>
<td>1.11</td>
<td>Agree</td>
</tr>
<tr>
<td>7. I can easily find the answers to my questions after discussion with peers.</td>
<td>3.96</td>
<td>1.03</td>
<td>Agree</td>
</tr>
<tr>
<td>8. I can have easier access to my peers when I need their help.</td>
<td>3.96</td>
<td>1.07</td>
<td>Agree</td>
</tr>
<tr>
<td>9. Peer learning is a useful strategy to improve the knowledge of the weaker students.</td>
<td>3.89</td>
<td>1.06</td>
<td>Agree</td>
</tr>
<tr>
<td>10. I have more shared understanding with my peers.</td>
<td>3.88</td>
<td>1.09</td>
<td>Agree</td>
</tr>
<tr>
<td>11. I can apply my recently learnt knowledge and skills during peer discussions.</td>
<td>3.85</td>
<td>1.04</td>
<td>Agree</td>
</tr>
<tr>
<td>12. Studying with peers is encouraging and increases motivation.</td>
<td>3.81</td>
<td>1.08</td>
<td>Agree</td>
</tr>
<tr>
<td>13. Studying with peers poses more questions.</td>
<td>3.78</td>
<td>1.11</td>
<td>Agree</td>
</tr>
<tr>
<td>14. I can improve my grades through peer learning.</td>
<td>3.76</td>
<td>1.06</td>
<td>Agree</td>
</tr>
<tr>
<td>15. Studying with peers creates positive attitudes towards school.</td>
<td>3.62</td>
<td>1.10</td>
<td>Agree</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3.91</td>
<td>.55</td>
<td>Agree</td>
</tr>
</tbody>
</table>
The figures shown in the Table 10 indicates that the respondents’ perception towards peer learning was overall positive. The total mean score for this part of the questionnaire was 3.91 with the item “I can understand the explanations and examples of peers easier” attaining the highest (4.08) score. Meanwhile, the item “Studying with peers creates positive attitudes towards school” had the lowest reported mean score of 3.62. It is also interesting to note that the standard deviation for most of the items was close to 1 which indicates the homogeneity of the respondents’ perceptions towards peer learning.

Research Objective Two

The third part of the questionnaire (see Appendix A) was designed to investigate the extent to which the students use peer learning. For this purpose, the students were given 15 statements in the form of five-point Likert scale questionnaire to mark the frequency and probability of each item in their academic activities.

Table 11 illustrates the mean scores and standard deviations of the use of peer learning. The items have been re-arranged from the highest to the lowest mean scores.

Table 11

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I (will) seek help from my peers to write my thesis.</td>
<td>4.12</td>
<td>1.00</td>
<td>Often</td>
</tr>
<tr>
<td>2. I ask my questions from peers with the same nationality.</td>
<td>4.10</td>
<td>.96</td>
<td>Often</td>
</tr>
<tr>
<td>3. I share any useful article or material with my peers.</td>
<td>4.07</td>
<td>1.02</td>
<td>Often</td>
</tr>
<tr>
<td>4. My learning comes from cooperative learning.</td>
<td>4.02</td>
<td>1.06</td>
<td>Often</td>
</tr>
</tbody>
</table>

Table Continues
As shown in the table above, the levels to which the students use peer learning was generally high with the total mean score of 3.90. It indicates that the students in GSB often use peer learning in their academic activities. It should be noted that the item “I (will) seek help from my peers to write my thesis” received the highest mean score (4.12) among all the items. It further emphasizes the importance of peer learning in graduate studies where the students seek out help from their peers to write their thesis.
At the same time, the item "Part of my scores comes from peer evaluation" had the lowest mean score which points out the need for more activities in the area of peer evaluation.

Once the means and standard deviations of the items in the second and third parts of the questionnaire (see Appendix A) were calculated, the researcher employed inferential statistics to address the objective number three and four. To this end, the researcher utilized statistical software program to analyze the data according to the selected variables. Independent Samples t-test was used to compare the data based on gender, nationality, and employment status, while one-way ANOVA was employed for the variable of age.

**Research Objective Three**

This objective aimed to compare the total score of the students' perceptions towards peer learning according to their age, gender, nationality, and employment status in Graduate School of Business, Assumption university of Thailand. The following tables illustrate in details the results of data analysis for this objective:

**Age**

Table 12

*Comparison of the Results According to the Respondents' Age Groups*

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>Sum of Square</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1.58</td>
<td>3</td>
<td>.52</td>
<td>1.701</td>
<td>.167</td>
</tr>
<tr>
<td>Within Groups</td>
<td>81.16</td>
<td>261</td>
<td>.31</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>82.75</td>
<td>264</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

As shown in the Table 12, the F ratio is 1.70 and Sig. 0.16 which means that there is no significant difference between the means of the respondents' perceptions
towards peer learning according to their age. Based on this finding, the researcher rejects the research hypothesis and accepts the null hypothesis.

**Gender**

Table 13

*Comparison of Male and Female Students’ Perceptions Towards Peer Learning*

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
<th></th>
<th>Male</th>
<th></th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>3.99</td>
<td>.52</td>
<td>3.78</td>
<td>.58</td>
<td>3.09</td>
<td>263</td>
<td>0.002</td>
</tr>
</tbody>
</table>

The table above shows that t-value and Sig (2-tailed) for the variable of gender are 3.09 and 0.002 respectively. Therefore, the researcher accepts the research hypothesis and confirms there is a significant difference among the students’ perceptions towards peer learning according to their gender. Meantime, as observed in the Table 14, female students may have more positive perceptions towards peer learning.

**Nationality**

Table 14

*Comparison of Thai and non-Thai Students’ Perceptions Towards Peer Learning*

<table>
<thead>
<tr>
<th></th>
<th>Thai</th>
<th></th>
<th>Non-Thai</th>
<th></th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>3.97</td>
<td>.56</td>
<td>3.86</td>
<td>.55</td>
<td>1.63</td>
<td>263</td>
<td>0.10</td>
</tr>
</tbody>
</table>

Table 14 illustrates that t-value is 1.63 with Sig (2-tailed) level of 0.1. It is therefore inferred that there is no statistically significant difference between Thai and Non-Thai students’ perceptions towards peer learning. As the result, the researcher rejects the research hypothesis for the variable of nationality.
Employment Status

Table 15

Comparison of the Results According to the Respondents' Employment Status

<table>
<thead>
<tr>
<th>Working</th>
<th>Not working</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>3.82</td>
<td>.58</td>
</tr>
</tbody>
</table>

In the Table above, t-value is 2.13 with Sig (2-tailed) level of .034. This shows that there is a significant difference between full-time and working students' perceptions towards peer learning. Likewise, the difference in the mean scores of the two groups implies that full-time students may hold more positive attitude towards peer learning.

Research Objective Four

This objective sought to compare the total score of the students' use of peer learning according to their age, gender, nationality, and employment status in Graduate School of Business, Assumption university of Thailand. Details of the data analysis for this objective are shown in the following tables:

Age

Table 16

Comparison of the Results According to the Respondents' Age Groups

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>Sum of Square</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1.27</td>
<td>3</td>
<td>.42</td>
<td>1.67</td>
<td>.173</td>
</tr>
<tr>
<td>Within Groups</td>
<td>66.40</td>
<td>261</td>
<td>.25</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>67.68</td>
<td>264</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
In the Table 16, the F ratio is 1.67 with Sig of 0.17. Therefore, the researcher rejects the research hypothesis and concludes that there is no statistically significant difference among the students’ use of peer learning according to their age groups.

**Gender**

Table 17

*Comparison of Male and Female Students’ Use of Peer Learning*

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
<th></th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>3.96</td>
<td>SD</td>
<td>.50</td>
</tr>
<tr>
<td>M</td>
<td>3.81</td>
<td>SD</td>
<td>.49</td>
</tr>
<tr>
<td>t</td>
<td>2.33</td>
<td>df</td>
<td>263</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.02</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the Table above, t-value is 2.33 with Sig. (2-tailed) of 0.02, which is less than .05. Therefore, the researcher accepts research hypothesis and concludes the there is a significant difference among the student’s use of peer learning according to their gender. Hence, the average mean score for the female students is 3.96 while the mean score for the male students is 3.81.

**Nationality**

Table 18

*Comparison of Thai and non-Thai Students’ Use of Peer Learning*

<table>
<thead>
<tr>
<th></th>
<th>Thai</th>
<th></th>
<th>Non-Thai</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>3.98</td>
<td>SD</td>
<td>.48</td>
</tr>
<tr>
<td>M</td>
<td>3.84</td>
<td>SD</td>
<td>.51</td>
</tr>
<tr>
<td>t</td>
<td>2.17</td>
<td>df</td>
<td>263</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.03</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in the Table 18, t-value is 2.17 and Sig.(2-tailed) is 0.03. It reveals that there is a significant difference between Thai and non-Thai students’ use of peer
learning. At the same time, the mean scores for Thai and Non-Thai students are 3.98 and 3.84 respectively.

**Employment Status**

Table 19

*Comparison of the Results According to the Respondents' Employment Status*

<table>
<thead>
<tr>
<th>Working</th>
<th>Not working</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>3.80</td>
<td>.55</td>
</tr>
</tbody>
</table>

Table 19 shows that for the variable of Employment Status, t-value is 2.87 and Sig. (two-tailed) .004. Therefore, the research hypothesis that there is a significant difference between full-time and working students’ use of peer learning is accepted. It could also be noted that the students who are not working, have got higher mean score.
CHAPTER V

CONCLUSION, DISCUSSION, AND RECOMMENDATIONS

The previous chapter presented the findings of this study regarding the students' perceptions towards peer learning in Graduate School of Business, Assumption University of Thailand. In this chapter the researcher will provide a brief summary of the study followed by conclusion, discussion, and recommendations for practice and future research.

Summary of the study

Peer learning is considered one of the most effective pedagogical strategies to improve students' knowledge and skills in wide ranges. This approach is even more significant in international universities where the students from different backgrounds come together. Considering all these facts, the researcher was interested to study the general perceptions towards the concept of peer learning among the students in Assumption University of Thailand. To accomplish this goal, the researcher developed the questionnaire with items identifying the students' demographic background, perceptions towards peer learning, and the extent to which they might use peer learning in their academic activities. Ensuring the validity and reliability of the questions, the questionnaires were distributed among 265 students in the Graduate School of Business during the third semester of academic year 2014. The rationale for selection of the mentioned school was the larger number of international students enrolled in the school's programs. There were four primary research objectives in this study which included:

1. To survey the students' perceptions towards peer learning in the Graduate School of Business, Assumption University of Thailand.
2. To determine the extent to which the students use peer learning in their academic activities in the Graduate School of Business, Assumption University of Thailand.

3. To compare the students' perceptions toward peer learning according to their age, gender, nationality, and employment status in the Graduate School of Business, Assumption University of Thailand.

4. To compare the students' use peer learning in their academic activities according to their age, gender, nationality, and employment status in the Graduate School of Business, Assumption University of Thailand.

There were also two research hypotheses which were derived from the objectives numbers three and four:

1. There are significant differences among the students' perceptions towards peer learning according to their age, gender, nationality, and employment status in the Graduate School of Business, Assumption University of Thailand.

2. There are significant differences among the students' use peer learning in their academic activities according to their age, gender, nationality, and employment status in the Graduate School of Business, Assumption University of Thailand.

To survey the objectives and to test the research hypotheses, the researcher employed both descriptive and inferential statistics. For this purpose, the statistical software program was utilized to analyze the collected data.

Findings

The main findings of this study correspond with the research objectives posed in chapter one and are presented in the following page:
• The total mean score for the students' perceptions towards peer learning accounts for 78.2% of the maximum score.

• Related to the students' perceptions towards peer learning, the item “I can understand the explanations and examples of peers easier” had the highest mean score. Meanwhile, the item “Peer learning creates positive attitudes towards school” scored the lowest among all the items.

• The total mean score for the students’ use peer learning makes up 78% of the maximum score.

• Concerning the use of peer learning, the items “I seek out help from my peers to write my thesis” and “My scores come from peer evaluation” attained the highest and lowest mean scores respectively.

• In terms of the students’ perceptions towards peer learning, the variables of gender and employment status had the significance levels lower than .05. In contrast, for the variables of age and nationality the significance was greater than .05.

• With regard to the students’ use of peer learning, the significance levels for the variables of gender, nationality and employment status were all less than .05. On the other hand, the variable of age showed the significance level greater than .05.

Conclusion

This study set out to investigate the students’ perceptions toward peer learning in the Graduate School of Business, Assumption University of Thailand. The following conclusions can be drawn from the findings:
• The respondents generally held positive attitudes towards peer learning. They had the highest agreement with the fact that the explanations and examples of peers are easier to understand. They were, however, more reluctant if peer learning can create positive attitudes towards school.

• The respondents confirmed to have often used peer learning in their academic activities. They had the highest peer interaction for the purpose of writing their thesis. On the other hand, they had smaller role to evaluate their classmates’ works.

• There were significant differences among the students’ perceptions towards peer learning according to their gender and employment status. Hence, no statistical significance was found according to their age groups and nationality.

• There were significant differences in the level to which students use peer learning according to their gender, nationality, and employment status. Age groups, however, showed no significant difference.

Discussion

Review of related literature indicates that there has been a wealth of support for the use of peer learning as an effective supplementary method for teaching and learning. It promotes active learning, reinforces learning through instructing others, and results in more attainments through shared discourse and knowledge. It also improves students’ psychological well-being and self-esteem (Briggs, 2013). At the same time, compared with the other alternative methods, peer learning is the most cost effective approach.
The current research studied peer learning in two aspects of the students’ perceptions as well as the level to which the students actually use this strategy in their academic activities.

**Perceptions towards Peer Learning**

The research findings showed that there is a positive attitude towards peer learning among the students in the Graduate School of Business, Assumption University of Thailand. This positive perception may have been achieved either by their previous experiences or their current informal peer learning activities. Meanwhile, the students showed the highest agreement level to the item “I can understand the explanations and examples of peers easier”. This goes along with the concept of intersubjectivity in Vygotsky’s Social Constructivism theory. It is defined as the extent to which two people can engage in discussions and debates which transcend their minds. Vygotsky believed that peers may create better context of intersubjectivity and therefore, facilitate cognition. The students, however, expressed their least agreement with the item “Studying with peers creates positive attitudes towards school”. The lower mean score for the item may indicate that besides peer relationships, there could be other factors determining the attitudes towards educational institutions. Furthermore, review of the existing research in the similar areas supports the current findings.

Wen and Tsai (2006) conducted research on students’ attitudes towards peer assessment. The data collected from 280 university students in Taiwan revealed that participants held positive attitudes towards the use of PA. They also suggested that PA should be counted in their total grades.

Majid and Tina (2009) studied Library Information Science (LIS) graduate students’ perceptions towards peer learning. The study aimed to investigate the
students' perceptions towards team work, to identify the effectiveness of peer learning, and to determine the factors students consider in choosing their peer partners. Results of this study showed that, two-thirds of the respondents preferred team projects to individual assignments. At the same time, they perceived their peers as supportive, responsible, and knowledgeable.

A case study was also conducted by Alexander, Lindow, and Schock (2008) to survey the physical assistant (PA) students' perceptions towards peer-to-peer learning and to review their course evaluation comments in Augsburg College. The results indicated that the members of intervention group who had used additional cooperative and peer-to-peer strategies felt to have learnt more than the comparison group. It also showed that the course evaluation comments were largely positive. The instructors' observations also confirmed that this kind of learning enhanced students' engagement and improved their critical thinking.

In another study, Farzaneh and Nejadansari (2014) investigated the students' attitudes towards cooperative learning in a private English language institute in Iran. The results indicated that the respondents hold positive attitudes towards the use of cooperative learning methods. This has also resulted in more positive attitudes towards the English language course itself.

**Use of Peer Learning**

Regarding the research objective two, it was found that the students in the Graduate School of Business have generally adequate interactions with their peers in different aspects of their academic activities. Being specific, however, the area that the students most often seek out help from their peers is for writing thesis. On the other hand, the use of peer evaluation for the students' grades has got the lowest mean scores among all the items. Though the mean score of 3.71 could still be interpreted as
“often”, the researcher hopes that the instructors provide more chance for the students to assess their peers’ works. The literature also suggests that peer evaluation could enhance students’ engagement and learning. Boud and Falchikov (2007, as cited in Thomas, Martin, & Pleasants, 2011) argued that peer assessment enables the students to make more sophisticated judgments. They also described it as an essential part of becoming an effective professional.

**Age Differences:**

Additionally, the inferential analysis of the data showed that there were no significant differences among the students’ perceptions and their use of peer learning according to their age groups. The results may indicate that the benefits of peer learning are high enough to appeal to the majority of students regardless of their age. But it must also be noted that, the respondents in the current study were mostly young adults and thus, their perceptions did not differ significantly. A study conducted by Atkinson (2005) suggests that those engaged in a specific profession generally have similar learning preferences. It also found that the spread of learning styles lessens as the students gets older.

**Gender Differences**

On the other hand, the study found that there was a significant difference between female and male students’ perception towards peer learning. To provide further support for this finding, the researcher reviewed previous research studies with similar results.

Wright (2003) studied the male students’ attitudes towards peer tutoring in Stephen F. Austin State University in Texas. She found that the percentage of the male students who seek help from the Academic Assistance Center was significantly lower than the female students. The study also identified self-handicapping excuses,
fear of being inferior and defensive maneuver as the main causes for the male student’s refusal to seek help from the peer tutors.

Research by Rodger, Murray, and Cummings (2007) has also supported the gender difference in learning styles of the students. In this study a group of female and male students were asked to complete mini-assignments both individually in a competitive condition and with a partner in a cooperative condition. The results indicated that female students performed higher than the males when they worked with their peers.

**Nationality Differences**

Another finding of this study is that there was a significant difference between Thai and Non-Thai students’ use of peer learning. As mentioned in the limitation of the study, Asian nationalities comprise a large body of international students in Assumption University of Thailand. The current results may reflect the fact that Thai students have more social interactions compared to the other Asian students.

Li (2012) studied the Chinese students’ learning styles in the University of Nottingham, Ningbo, China. The results indicated that the learners, who preferred group learning, shared the lowest mean score among all other learning styles.

Yet, the other cause of this difference might relate to the fact that international students usually face some kinds of isolation while studying abroad. Weiss (1973) identified two kinds of personal and social isolations among the international students.

In a comprehensive study conducted by Sawir, Marginson, Deumert, Nyland, and Ramia (2007), 200 international students from nine Australian universities were interviewed for the inquiry of their isolation and loneliness. The results showed that 65% of the students had experienced isolation in Australia.
Employment Status Differences

Finally, the study revealed that there was a significant difference between full-time and working students’ perceptions towards peer learning. This is consistent with the other finding that full-time students are significantly different with working students in terms of the use of peer learning. Gardner and Gopaul (2012) investigated the issues surrounding part-time doctoral students in the United States. The results of their interviews explored that the majority of these students did not have sufficient relationships with their peers.

Recommendations

Recommendations for Practice

Based on the findings of this study, the researcher offers recommendations to the administrators, instructors, and students in Assumption University of Thailand.

As mentioned in the earlier chapters, the number of international students in AU is rapidly increasing. This creates diverse classrooms with students who are not only culturally and linguistically different, but also differ in terms of cognitive abilities and background knowledge. To address these challenges, the researcher highly recommends the instructors to implement peer learning activities in their classrooms. Through this instructional strategy, the teachers will be able to structure a differentiated instruction which would meet the interests, abilities, and learning preferences of wider range of the students. Though the results of this study reveal that the students in GSB have generally high levels of peer interaction, the researcher still believes that peer learning would be more beneficial if it is implemented in morestructured and planned approach. Assigning more group projects and allowing the students to evaluate their peers’ works are the initial steps to achieve this goal. In
more formal ways, the instructors could appoint the more knowledgeable or senior students to tutor the weaker or junior students. Meanwhile, the data analysis showed that there is a significant difference between Thai and Non-Thai students in the level to which they use peer learning. This implies that Non-Thai students demand more support from the instructors to be engaged in the group activities.

The researcher would also like to recommend the administrators to prepare the ground for more peer interactions through organizing various academic meetings as well as educational trips. They are also recommended to conduct workshops to train the instructors to implement cooperative and peer learning methods in their classrooms. The university may also provide a stipend or other kinds of rewards for the peer tutors to increase their motivation.

For the students, peer tutoring is an ideal opportunity which helps them further improve their knowledge through teaching. It must also be noted that peers are often more available than the instructors. And as confirmed by the students themselves it is easier to understand the explanations of peers as they share more knowledge. Accordingly, it is recommended that the students construct positive relationships with their peer in order to optimize their academic learning as well as cultural knowledge.

Recommendations for Future Research

This study surveyed the perceptions of the students towards peer learning in Graduate School of Business, Assumption University of Thailand. The primary recommendation for the future researchers is to conduct the similar study from the perspective of the teachers. At the same time, the future researcher could also study the students’ perceptions towards peer learning in undergraduate or school levels. Likewise, the current research could be expanded to compare the students’ perceptions according to their specified nationalities. Another comparative study
could be conducted to determine any possible difference among the students and teachers’ perceptions towards peer learning.

Furthermore, it is recommended to those researchers who are engaged in teaching to investigate the effectiveness of peer learning through conducting longitudinal researches.

Finally, the future research could focus on the learning preferences of the students to observe the appeal of peer learning compared to the other kinds of strategies.
References


http://www.uky.edu/~eushe2/Bandura/Bandura1961JASP.pdf


https://archive.org/stream/madrasschoolore00bellgoog#page/n3/mode/2up


http://jcpe.wmwikis.net/file/view/blake.pdf


education.msu.edu/irt/PDFs/OccasionalPapers/op017.pdf


Heron, T. E., & Harris, K. C. (2001). The educational consultant: Helping professionals, parents and students in inclusive classrooms. Austin, TX: Pro-Ed.


http://archive.org/stream/moraljudgmentoft005613mbp/moraljudgmentoft005613mbp_djvu.txt


http://www.pitt.edu/~strauss/origins_r.pdf


http://www.pitt.edu/~strauss/origins_r.pdf


80

http://www.uio.no/studier/emner/matnat/ifi/TOOL5100/v08/leseliste/F9/Rom
metveit76_Arch.pdf


http://www.ehow.com/info_8469871_negative-effects-peer-tutoring.html


Wagschal, P. H. (1998). Distance education comes to the academy: But are we asking the right questions?. *The Internet and Higher Education.* 1, 125–129.


APPENDIX A

The Questionnaire

Students' Perceptions and Use of Peer Learning
Peer Learning Questionnaire

Greetings!

Please be informed that the researcher has constructed the following questionnaire to collect data on students’ attitudes and their reported use of peer learning in the Graduate School of Business, Assumption University of Thailand.

If you are knowledgeable and are prepared to express your views on the topic please proceed.

You are kindly asked to fill up the questionnaire with care and honesty. Your participation is highly appreciated.

The researcher ensures that the collected information will be treated with strictest confidentiality.

The survey will take no more than 15 minutes to complete.

Sincerely yours,

Sina Sobhanian, The researcher.

Part I .Demographic Information:

1. Gender:
   - Female
   - Male

2. Age:
   - 20-25 years old
   - 26-29 years old
   - 30-35 years old
   - over 35 years old

3. Nationality:
   - Thai
   - Non-Thai

4. Employment Status:
   - Working
   - Not Working
Part II. Attitudes towards Peer Learning:

Please circle the number which represents the level you agree with each of the statements below.

1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly agree

<table>
<thead>
<tr>
<th></th>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Peer learning is a useful strategy to improve the knowledge of the weaker students.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Peer learning is a useful strategy to improve the knowledge of the tutor students.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Peer learning provides assistance to the teachers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Studying with peers strengthens friendship and trust between students.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>Studying with peers creates positive attitudes towards school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Studying with peers is encouraging and increases motivation.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>Studying with peers increases self-confidence and self-esteem.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>Studying with peers broadens cultural knowledge and understanding.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>Studying with peers poses more questions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>I can apply my recently learnt knowledge and skills during peer discussions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>I can understand the explanations and examples of peers easier.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12</td>
<td>I can improve my grades through peer learning.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13</td>
<td>I can easily find the answers to my questions after discussion with peers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14</td>
<td>I can have easier access to my peers when I need their help.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>I have more shared understanding with my peers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Part III. Use of Peer Learning:

Please circle the number which represents the probability and the extent to which you use any of the items below.

1= Never, 2= Rarely, 3= Sometimes, 4= Often, 5= Always

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>My lecturers encourage students to work with peers.</td>
<td></td>
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<tr>
<td>2</td>
<td>My assignments require cooperative work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>3</td>
<td>My learning comes from cooperative learning.</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>4</td>
<td>Part of my scores comes from peer evaluation.</td>
<td></td>
<td></td>
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<tr>
<td>5</td>
<td>I can learn from my peers in the classroom</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>6</td>
<td>I ask my questions from peers in preference to the lecturers.</td>
<td></td>
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</tr>
<tr>
<td>7</td>
<td>I ask my questions from peers with the same nationality.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>I have out of school academic discussions with classmates of my same batch.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>I have out of school academic discussions with my senior peers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>I seek help from peers with the same gender.</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>I (will) seek help from my peers to write my thesis.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>I seek help from my peers to improve my language skills.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>I share any useful article or material with my peers.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>14</td>
<td>I provide feedback on my peers’ works.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>I receive feedback from my peers and take them seriously.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thank you for your time and for sharing your thoughts with me. It will greatly assist my research.
APPENDIX B

Content Validity of the Questionnaire
The Content Validity Approval of Experts

1. Dr. Sangob Laksana (Dean of the Graduate school of Education, Assumption University of Thailand)
2. Dr. Surapee Sorajjakool (School Director of Satit Bilingual School of Rangsit University)
3. Dr. John Arthur Barnes (Faculty Member of The Graduate School of Business and Head of Tourism and Hospitality Management Programs, Assumption University of Thailand)
Validity Approval

Do you approve the content validity of this questionnaire?

☐ Yes, I, ............................................. have read and certify the content validity of this questionnaire. My comments and suggestions are noted below.

☐ No, I, ............................................. have read and am unable to certify the content validity of this questionnaire. My comments and suggestions are noted below.

Comments:

Employment Status:

[ ] Adjunct

[ ] Not Working

[ ] Working

Your Institutional Affiliation: .............................................

Your Position: .............................................

Signature: .............................................

16 August 2014

Thanks for your assistance in evaluating my research questionnaire
Validity Approval

Do you approve the content validity of this questionnaire?

☐ Yes, I, ___________________________, have read and certify the content validity of this questionnaire. My comments and suggestions are noted below.

☐ No, I, ___________________________, have read and am unable to certify the content validity of this questionnaire. My comments and suggestions are noted below.

Comments:

Your Institutional Affiliation: ___________________________
Your Position: ___________________________
Signature: ___________________________

Thanks for your assistance in evaluating my research questionnaire.
Validity Approval

Do you approve the content validity of this questionnaire?

☐ Yes. I,........JOHN ARTHUR BARMES........ have read and certify the content validity of this questionnaire. My comments and suggestions are noted below.

Comments:

Perceptions comments: do you mean attitudes preferences opinions?

If you are knowledgeable and are prepared to express your views on the topic please proceed.

Comment: you might mention how long it might take to complete the questionnaire.

Item 4: My scores come from peer evaluation Do you need to qualify this perhaps some scores come from peer learning and others do not.

Item 6: I ask my questions from peers in preference to as well as from the lecturers.

Item 10: I seek help from peers with the same gender.

Item 11: I seek help from my peers to improve my language skills.

Thank you for your time and for sharing your thoughts with me. It will greatly assist my research.

Your Institutional Affiliation ..........University of Phuket Asian University of Phuket

Signature..........................THAI MAI

Thanks for your assistance in evaluating my research questionnaire