Learning Approaches and Learning Outcomes of the English University Curriculum: A Comparative Case of Cambodia and Thailand

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Abstract

The access to higher education has been massively expanding which has impacted on quality of education, assessment system, learning environment, teaching and learning approaches at classroom level. In encountering with the massification, Cambodian and Thai governments are struggling to provide students with excellent academic performance and employable graduates in the competitive labor market of today. English language was one of the key tools for the students to acquire knowledge and skills for the national, regional and international marketplace. This research aims to provide comparative understanding of how undergraduates learn and achieve their academic outcomes through English curriculum in the contexts of Cambodia and Thailand. The objectives of the study are to compare levels, relationships and predictability of learning approaches and learning outcomes achieved by the undergraduate students. The total samples of 186 key informants were the undergraduate students from Cambodia (n=97) and Thailand (n=89) who enrolled in year 3, 4 and fresh graduates of English major in two respective universities. The data collection method was gathered through a self-rating online survey employing RASI and CEQ questionnaires to measure the perceptions. The descriptive data, correlation coefficients, and multiple linear regression were used for the comparative data analysis. The study yielded different levels of learning approaches and similar degrees of learning outcomes in the two groups. The students from Cambodia gained higher level of utilizing deep approach to learning (M=3.79) and they were found to achieve higher GPA on average (67%). The finding not only indicated similar significant relationships (p<.05) between the models in each group but also showed different levels of influences on students’ learning achievement. The strongest predictor of learning outcomes (R²=.34) was explained by deep approach to learning for Cambodian group whereas the learning outcomes for Thai group (R²=.47) were predicted by strategic and deep approaches to learning. The study also suggested that teachers and relevant educational actors encourage students to use deep and strategic approaches while demotivating surface approach to learning in order for the students to achieve better learning outcomes both qualitatively and quantitatively so that they acquire competitive qualification for their future career goals.
Abstract

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<th>Full Form</th>
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<tbody>
<tr>
<td>ASEAN</td>
<td>Association of South East Asian Nations</td>
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<td>ASSIST</td>
<td>Approaches and Study Skills Inventory for Students</td>
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<td>ANOVA</td>
<td>Analysis of Variance</td>
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<td>AUN</td>
<td>ASEAN University Network</td>
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<td>CEQ</td>
<td>Course Experience Questionnaires</td>
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<td>C Group</td>
<td>Cambodian Group</td>
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<td>EFL</td>
<td>English as a Foreign Language</td>
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<td>GPA</td>
<td>Grade Point Average</td>
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<td>HE</td>
<td>Higher Education</td>
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<td>HEIs</td>
<td>Higher Education Institutions</td>
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<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
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<td>L1</td>
<td>First Language</td>
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<td>L2</td>
<td>Second Language</td>
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<td>M</td>
<td>Mean</td>
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<td>N</td>
<td>Sample</td>
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<td>PISA</td>
<td>Program for International Student Assessment</td>
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<td>RASI</td>
<td>Revised Approaches to Study Inventory</td>
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<td>SPQ</td>
<td>Study Process Questionnaire</td>
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<tr>
<td>SPSS</td>
<td>Statistic Package for Social Science</td>
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<tr>
<td>SD</td>
<td>Standard Deviation</td>
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<tr>
<td>T Group</td>
<td>Thai Group</td>
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<tr>
<td>TIMM</td>
<td>Trends in International Mathematics and Science Study</td>
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Acknowledgments

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Chapter 1
Introduction

1.1 Background of the Study

Access to higher education has been increasingly expanding throughout the world in the last decades which has imposed great challenges on many universities to produce more qualified and competent graduates. The global enrollment in higher education remarkably increased from 100 million in 2000 to 182.2 million in 2011, made up of 46% growth in East and South Asia (UNESCO, 2014). The same trendy change has been reported in OECD and G20 countries in responding to the current increase. Between 1995 and 2013, there were more than 23 million students enrolled in 2013 in higher education, where the number rose by more than 20 percentage point on average. From the increasing rate, there was 53% of Asian students have enrolled in tertiary education in OECD and G20 nations where the destinations were the English-speaking countries and aimed to gain specific skills and knowledge that can fulfill the needs of their professions (OECD, 2013). The same report pointed out the milestone change was consequently the impact of globalization: massification, privatization and internationalization together with the rising demand in society, economic competition, qualified human resource, and employability in higher education. In Southeast Asia, there are two emerging countries that indicated a remarkable change of the increasing university enrollment: Cambodia and Thailand. According to Lao (2015), high school graduates in Thailand have increased from 0.7 million in 2000 to 1.8 million in 2016 that doubled in number of students who started their university for the first time giving a significant impact on access and quality of higher education. Meanwhile, the enrollment rate in Cambodian higher education institutions (HEIs) has also doubled from 137 thousand in 2009 to approximately 216 thousand in 2013 (MoEYS, 2014). This increasing amount has challenged the governments and national education actors to pay more attention to the recruiting process and graduate capabilities.

The trendy globalization has reshaped the economic, social and education system of most countries in Southeast Asia. To accelerate the political, economic, and socio-cultural development, there were 10 countries in the region agreed to join a new larger
community namely the Association of Southeast Asian Nations (ASEAN) that was official integrated in 2015 whereby the sub-objectives were to promote better quality of higher education, build academic network and enhance human resource development. In order to qualify students for the competitive global and regional labor market, under ASEAN academic agreements, the member states have established a professional mandate called ASEAN University Network Quality Assurance (AUNQA) that was officially launched in 2000, having its headquarter in Thailand. A number of universities have joined the cooperative network in promoting academic research, student mobility and creating quality assurance system (Beerkens, 2004). The accreditation and evaluation for higher education program was established to determine the quality standard of the university partners in alignment with both regional and international quality assurance framework (AUN, 2011). Regarding the increasing enrollment and massification of undergraduate students, the university members are required to provide an acceptable standard of higher education in the region and international platform. At this point, the university members have seen crucial role of English language for teaching and learning for the undergraduate level, giving significant implication for the post-integration that aimed at developing international programs, academic cooperation and employment competitions. For instance, Widiati and Hayati (2015) mentioned that the official working language and ASEAN documents are written and communicated in English that is necessarily required knowledge and ability in using the language at good level. Therefore, the universities are encouraged to bring in English curriculum for the students in order to prepare them ready for the regional and global employability by increasing number of graduates with English proficiency and professional qualification.

Wongsothorn (2000) pointed out that Thai government has been promoting the use of English language as medium instruction, English textbooks, academic research and access to information technology for international program in higher education level. However, the learning outcomes of the university students from Thailand were resulted in poor communication skills and learning performance compared to ASEAN members, hindering the challenges in giving English instruction and students’ employability (Noomura, 2013). Similar to this concern, the Cambodian government also pointed out that when the number of students increased very fast, the quality was getting low. There was 73 percent of graduates did not fulfill the demands by
employers both local and foreign direct investors who required technical skills, critical thinking ability and English language for communication (Sothy, Madhur & Rethy, 2015). According to English Proficiency index published in 2014, Cambodia and Thailand were ranked in very low proficiency level. Among 63 countries that took the Standard English test, Thailand stood at 48th when Cambodia was at 61th ranking position showing the effort of bringing in the English curriculum has been very limited to achievement (EPI, 2014). For instance, the teaching methods and learning materials were reported to be the factors influencing students’ ability, a method they adopted and learning approaches they chose to improve learning outcomes. This has imposed great concerns in term of provision of quality in teaching and learning processes and expected output in higher education when the large number of students have pooled in the system. The massification of higher education (HE) means that the system no longer aims at educating the proportionately smaller numbers of highest-ranking students but the primary purpose of higher education today is to provide highly effective education for all students (Chen, Chiu, & Wang, 2015). Consequently, students’ learning achievement is increasingly important as a life-changing step and early career path (Jenkins, 1998). The fundamental purposes of higher education are to improve the quality, enhance student academic achievement and competition for the future employability. Therefore, enhancing the quality of education through bringing in new curriculum and raising academic outcomes would increase competitiveness and is considered an crucial factor that can meet the current labor market needs.

In regards to the English curriculum in Thailand, Darasawang (2007) mentioned that it is compulsory for undergraduate students to take 12 credits and 4 subjects of English in foundation courses in both public and private universities. The academic exchange program between Thai and foreign students are encouraged at the university level based on the policy plan of 2002-2006. The main objectives of the curriculum were to equip student with both spoken and written English for communication by improving learning strategy, developing critical thinking skills and recognizing the importance of cultural differences through the language communication. However, Rappa and Wee (2006) pointed out that the implementation was challenging due to the insufficient learning resources and less effectiveness of teaching and learning methods mainly in the remote areas as it was difficult to access to educational
resources, media and lack of qualified teachers of English. The level of English proficiency of entering university students was reportedly low; however, the new credit system was seen importance that help solve the problems and encourage life-long learning goals as stated in the objectives of the curriculum. Pawapatchararudom (2007) added that most concerned problems faced by the undergraduates who studies English courses were writing skills followed by listening and reading. The students were tended to produce incorrect use of grammatical rules and unable to present their thoughts in a structural way. When compared to the English curriculum in Cambodian higher education, Rany, Souriyavongsa, Zain and Jamil (2013) mentioned that the objectives also aimed to provide quality of curriculum in higher education according to the ASEAN quality standards. English is one of the key successes to improve the professional communication, research and development and cooperation work with international communities (MoEYS, 2014). The Standard English quality and credit system was provided in foundation courses for the undergraduate to improve communicative skills and fulfill the language competent needed in national labor market and expand the job competition the region. It is compulsory for all undergraduates to take the courses in English, receiving 6 hours per week in four macro skills: reading, writing, speaking and listening. The course curricular was designed to ensure the quality of higher education that complied with national policies, regional framework, social needs and employment market. However, the implementation at the university level faced some challenges due to shortage of annual budget, inadequate learning resources, lack of teaching qualification and inadequate research capacity in English (Rany, Zain & Jamil, 2012). The high rapid growth in undergraduate enrollment has played significant roles in challenging the quality of learning; consequently, a large number of the graduate students in Cambodia did not match with the market requirements (Chealy, 2009). To cope with the problem, Cambodian government has currently invested more budgets on policy implementation to assure the effectiveness at the grassroots level and to raise the quality standard in both public and private universities across the country by improving English language program, increasing library services and supporting learning facilities.

The established learning outcomes of HEIs for both contexts in Cambodia and Thailand have became more competitive. The two governments aspire to produce
highly qualified graduates who are equipped with knowledge, technological skills, creativity, languages capability, problem solving and critical thinking skills that can contribute the social and economic development in the countries and the region (MoEYS, 2014; OHEC, 2014). Therefore, policy makers and educators have been striving to find different teaching strategies that are meaningful, motivational and appropriate for their students so that they are better able to solve problems in the real world after graduation, are ready to join the workforce and being encouraged to enter a life-long learning trajectory. However, most students from Asia including Cambodia and Thailand are generally culturally stereotyped as ‘rote and passive learners’ discussed in (Biggs, 1996) that often emphasize on memory-based learning and reproducing knowledge characterized in surface approach instead of learning to understand the meanings; consequently; they would be unable to apply the skills and knowledge in the real world (Bailey & Pransky, 2014; Ngo & Lee 2007; Darasawang, 2007; Noomura, 2013). This relatively because of higher education system and assessment policies have created a misconception that using solely memorizing approach was good enough to pass a certain course. Using memorizing skills may help the students to get high score ‘A’ in high school or lower levels but it was not necessarily excel the undergraduate students to gain better learning outcomes (Hasnora, Ahmadb & Nordin, 2013). This scenario could affect student academic achievement and knowledge that hindered them in applying important concepts e.g. in solving problems when transferred to real life issues after graduation.

To produce more qualified and competitive graduates, today the undergraduate students from Cambodia and Thailand are encouraged to challenge beyond merely memorizing technique in order to enhance analytical ability to achieve high academic goals, which frequently relates to a meta-knowledge of a deep approach to learning (Ramsden, 1983). The learning approaches play a crucial role in influencing student academic output and skill development. Entwistle (2001) noticed that teaching methods and learning environments are positively correlated with students’ self-perception on approaches to studying and academic outcomes. Students who apply deep approach to learning are generally believed to perform better than those who adopt surface approach and a passive learning style. Students’ beliefs about learning and teaching are considered important for educators and academic staff in order to allow them to understand how curriculum content knowledge is learned and what can
be learned. A number of prominent researchers in the field such as (Marton & Saljö, 1976; Entwistle, 1997; Biggs, 1999) have developed the concepts of learning approaches and its interaction with the learning environment to enhance the learning output of the students at university level. In this sense, the relations between learning approaches and teaching methods have been the focal point of changing student learning towards academic success. Therefore, the academic leaders are encouraged to develop their professionalism and are trained to be more efficient in coping with the new learning challenges. The greater emphasis is on measurability of outcomes, students’ satisfaction and quality of educational provision.

In encountering similar challenges, Cambodian and Thai governments are struggling to provide students with excellent academic performance and employable graduates. The graduates should be adequately equipped with skills, knowledge, understanding and communication ability that allow them to be independent, creative and competitive in the labor market today (MoEYS, 2014; OHEC, 2014). Some research work reported by (Heng, 2012; Waelateh, 2016) mentioned that the teaching and learning in these two contexts were mainly based on traditional methods, being teacher-centered techniques using memorization, recitation and an overuse of teacher talk in most part of instruction, while students were given less involvement and participation as learners. Hence, many students were not capable enough to work independently and creatively. In adapting to the national education changes, the two governments have endorsed an educational reform shifting teacher-centered approaches to more students-friendly teaching methods based on learner-centeredness and student-learning autonomy in higher education (Ginsburg, 2010). However, many students at university level are still struggling with the old cultural philosophy of learning and memorizing theories, although the concept of independent-learning approach has been put forth in different classrooms. This has made a great impact on student performance and academic achievements whereby many teachers and educators in these contexts are not fully aware of the significance and roles of students’ learning approaches.

There is still a lack of research and understanding of what factors affect the learning approaches and how the utilization of learning approaches influence on students’ learning outcomes in the contexts of Cambodian and Thai higher education. By
understanding the how the learning approaches relate to student academic outcomes, it could help education reformists in their national or institutional educational development in and through English curriculum to be aware of the quality of outcomes and also would have the wider long term impact of ensuring that Cambodia and Thailand can be assured to compete in the regional and global markets. Due to the rapid change of educational environment in the globalized world, ASEAN socio-cultural integration, and substantial university enrollment in Cambodia and Thailand, it is essentially needed for the two HEIs contexts to compete for the best higher education quality in the knowledge economy of mass education by increasing graduate capability in the international and regional labor markets.

1.2 Aims and Objectives
The aim of this study is to explore what role the university learning and instruction places on the quality of graduate capabilities in two emerging economies in Southeast Asia. The study responds more generally to the current wave of massification in higher education and the measures taken by universities in competing in the knowledge economy. Universities in emerging economies expand their English curriculum offerings in order to be part of the global competition of knowledge. What impact does this have on student learning and graduate capabilities? The aim of this study is understand the comparative levels and relationships between learning approaches and academic outcomes of undergraduates who enrolled in Bachelor of English major at a university in Cambodia and Thailand. There are three main objectives of the study being addressed:

1. To identify comparative levels of learning approaches and learning outcomes achieved by undergraduate students enrolled in Bachelor of English in the contexts of Cambodia and Thailand.
2. To investigate comparative relationships between learning approaches and learning outcomes perceived by undergraduate students in the two contexts.
3. To predict comparative degree of influence of learning approaches on learning outcomes experienced by undergraduate students in the two contexts.
This study is a replica of some previous research investigated students’ learning approaches and academic outcomes in different time and context (Lizzio, Wilson & Simons, 2002) by adapting some parts of the concepts and tailored the framework in order to fit the current learning context and feasible for the study.

1.3 Research Questions

These questions are articulated within the parameters of quantitatively framed research study and constructivist approach. The questions only address one part of the overall issues on the topic of massification of higher education in Cambodia and Thailand, but which aims at providing a timely comparative angle linking learning approaches and learning achievement in the educational development in South East Asia. The mentioned aims and objectives are translated into several research questions addressing the levels and relationships between students’ approaches to learning and academic outcomes in the two contexts:

1. What are the levels of learning approaches and learning outcomes attained by the undergraduate students enrolled in Bachelor of English in the contexts of Cambodia and Thailand? Are they comparatively different?
2. How do the relationships between learning approaches and learning outcomes correlate in the two contexts? Are they comparatively different?
3. To what extent can learning approaches predict learning outcomes in both contexts? Are they comparatively different?

1.4 Significance of the Study

The two mega-trends of massification and globalization have influenced on the contemporary higher education permitting the extension of enhanced access and increasing enrollment. These have changed the higher education landscape that consequently impacted on finance, governance, quality, curriculum, institution and student demographic (Shin & Harman, 2009). Cambodia and Thailand are the two emerging economies in South East Asia region that need to compete in the knowledge market places through developing and expanding English tertiary education and qualified graduates with critical thinking ability. However, there is a lack of evidence about how English curriculum is being executed and developed in the two contexts, and there is too little research on how the undergraduates of English program learn
through the undergraduate degrees. In responding to the major change of the university enrollment and improving the quality of learning service, Thai government started to reform teaching and learning practice at classroom level in 1999, shifting traditional pedagogy of teacher-based approach to more student-based learning when Cambodian government began to redirect the same strategy later in 2002 (Darasawang, 2007; MoEYS, 2007). The new approach has been applied in both lower and higher levels of educational institutions but there is too little evidence showing the impacts on the outcomes in both contexts. In the light of competition, educational bilateral collaboration between the two countries has been important. Cambodia and Thailand have set up educational cooperation since 1996 and a number of bilateral programs since 2003 where Thailand have supported Cambodian education system in term of improving equitable access to education and quality improvement through the linkage between institutions, scholarship provision, and exchanges of high officials, educational experts, students, and support education-related materials (Kijtorntham, Ruangdej & Saisuwan, 2015). Higher education cooperation was of the main focuses from research and development to provision of quality professional training that academically supported Cambodian government to achieve the educational goals, sustainable economic growth and poverty reduction. However, there is still too little evidence of the educational reform outcome and collaboration output that could indicate the impacts of the implementations, particularly in the area of university students learning and their academic outcomes.

This study makes an academic contribution to the area of international and comparative education in terms of understanding the differences and similarities of learning approaches and learning outcomes in the contexts of higher education English undergraduate curriculum in Cambodia and Thailand. Bray, Adamson and Mason (2007) stated that research that compares the learning outcomes of university students in two countries provides an opportunity to compare the national level in regards of learning experience perceived by the undergraduates and of academic concern on quality of the curriculum. This may allow a chance to identify what type of approaches the students have used in their learning process and how these embraced approaches are adopted to achieve their learning goals in responding to the effectiveness of teaching methods and course assessment that aim at improving
student critical thinking in the sea of educational change and higher education mastication in both countries. Ramsden (1998) pointed that the research in learning approaches at tertiary level can provide resourceful information for university teachers. By understanding students’ learning behaviors, approaches to learning and academic outcomes, the educational actors can examine the evidence to point out the successes and challenges that can be used to improve teaching method, learning process, academic environment and English curriculum in a more rigorous way. There is much research conducted in Europe and East Asia on how the learning approaches influence on academic outcomes including China, Hong Kong, Japan and Korea but it is very little known about how Cambodian and Thai students learn in the well-known theoretical framework of (Marton & Säljö, 1976; Biggs, 1979; Entwistle & Ramsden, 1983). Regardless of much prior research on the topic there remains limited understanding about students’ beliefs, which learning approaches they use and how the different approaches influence their learning achievements. Therefore, it hopes to provide evidence to the existing body of literature, and future research within the context. It is also expected to provide resourceful new information for university practitioners in higher education in Cambodia and Thailand that may allow them to become aware of the students’ learning and desired outcomes as capable graduates contributing to the workforce.

1.5 Limitations of the Study
As stated in the section above, the study is limited by the nature of the focus on constructivist learning and instruction approach as a player in educational reform and development in higher education. These approaches, while vastly researched in their own application, require a linkage in response to the current impact of globalization. Such is both a limitation and a potential contribution to originality of thought on the issue. The limited design of research methodology is inevitable. This study is mainly based on quantitative framework that is not more superior to other research approach. The design is tailored in responding to the nature of research objectives and questions being raised: the levels, the relationships and predications. The quantitative study using self-reported survey is selected in this study to interpret the level of perceptions among students rather than the study of behavioral phenomena. Bryman (2012) claims that the weakness of using questionnaire that has shown the poor relation
between human behavior in the group, norm and culture. When it is solely focused on testing concepts that have been predominantly formulated in the deductive approach, it has failed to understand the deeper meaning and certain behavior of the informants. Using only the questionnaire to understand the reality has missed the data triangulation with other perspectives.

This study deals with large numerical data that allow the possible generalization of the study. The larger the sample that is selected, the more possibility it is to generalize the statistical results to the larger population. However, generalizability is very limited due to the number of case ‘university’, number of volunteer participants and subject area selected e.g. social science domains rather than science subjects at the two selected universities. Different universities would be having different curriculum, teaching methods and utilization of learning approaches resulted in variations. Therefore, the result of the study is able to generalize to other university with similar context and disciplinary offering similar programs or curriculum in the two contexts.

There are more variables that this study would not use to investigate: gender, age, religion, year of experience involved in learning English, and interview on the program that require more time and budget preparation; otherwise, the study would result differently and more rigorous. Due to the time and budget restriction, the researcher has needed to narrow down the scope by selecting only one subject area and students who study English major only. The reason was related to among other means, the limited budget required for language translation in both native languages (Khmer, Thai) and vice-versa. The most convenient way is to conduct online survey from distance. Although this method is having less control over the participants, the researcher use gate keeper as the access in gaining responses through heads of the department and teacher-in-charge of the classes.
Chapter 2

Literature Review

Whilst this study is related in a macro sense to world and global education development issues, it would not focus on drawing on the theory as it wishes to turn the gaze towards the role which learning and instruction may have on constructing the parameters involved in the process of national HE reform. Therefore, the constructivist framework has been chosen to understand the fundamental theory and related application explaining how the knowledge of the students is constructed and how the learning environment influences the learning process and academic outcomes.

2.1 Constructivist Theory of Learning

A framework for understanding concepts of teaching and learning in educational psychology is mainly based on the theories of constructivism and behaviorism. The constructivists have changed the educational aspects as seen in light of change from teacher-centered approach to student-centered basis (Irving, 2010). Considering students as central part in learning process, constructivist believes that students learn better when they construct the knowledge by themselves, not what teacher intends should be learned. The interaction with social environment promotes learning through language acquisition, collaboration with learners and engagement with problems solving in the real world Biggs (1993). Learning occurs from both internal and external association with the individuals. Students’ experience and prior knowledge play important roles in learning. The crucial figure of modern cognitive constructivist back in 1950, Jean Piaget developed theories of teaching and learning with an assumption that knowledge can be described as developmental structure that changes over time in three main steps: schema, assimilation and accommodation. He considered human brain as active processor of information and people learn through social interaction with learners to build knowledge (Mayer 1981). His study was in line with other prominent social constructivist in 1962, Vygotsky who believed knowledge of learner is constructed internally; however, the process is driven by the social relation with the outside world (Cobb, 1996). The context of social relation such as teachers, curriculum, peers and other related factors plays roles in developing
individual knowledge. Piaget and Vygotsky shared common belief that teachers work as facilitator: provides direction for learners and promotes collaborative learning activities in the constructive classroom. Students should be able to constitute knowledge and internalize the construct given through gathering information, analyzing the data and reflecting the knowledge rather than memorizing the texts. From individual constructivist perspective, Biggs (1993) mentioned that knowledge is constituted from the inside and can be tested from the outside world. Learning is conceptualized as a result of constructing meaning based on prior knowledge and experience. He proposed a system theory of input-process-output explaining that knowledge is constituted independently and having causal chain in each step. In other word, the knowledge is constructed from the inside and brought from the outside. Based on this constructive model, Biggs developed a principle ‘outcome-based education’ used as a standard to improve teaching and learning for the educational goals. It focused the result of learning and assessment task as a mean of checking intended outcome learning. However, Prosser and Trigwell (1999) argued that the presage—process—product model failed to describe the chain of causality extended over time and the analytical discussion on individual awareness of learning and teaching should be explained. The same authors described the constructivism as dualistic perspectives that separated individual and the world. There is an internal relation between the two elements: students and subject matters as one component in which they are not constituted independently but through the awareness of the world. From constitutionalism within constructivist perspectives, Marton and Säljö (1976) assumed that there is no internal structure of mind that is composed independently. The students and the world are considered as one part that is internally related through individuals' awareness of the world (Marton & Booth, 1997). Therefore, student should define what is learned rather than what teacher determines what to learn. In this sense, when constructivism emphasis on what students required doing, the constitutionalism focuses how student present their knowledge (Prosser & Trigwell, 1999). However, these concepts are to construct student knowledge from their learning activities, building on what is known, and engaging their active learning. Either applying the framework of constructivism or constitutionalism is to make student learn in a meaningful way. Biggs and Tang (2007) mentioned that as long as the theory is consistent with the study and suitable for their work, the theory is not the matter. Hence, by focusing on outcome-based learning, this study prefers the concept
of constructivism as a framework to construct knowledge addressed by learning environment, approaches to studying and individual students to achieve the desired outcomes.

2.2 Concepts of Learning Approaches

The two perceptions of learning patterns in higher education were discussed from two different perspectives: Students’ Approaches to Learning referred to the learning process and Achievement Goals referred the learning outcomes found in the study (Cano & Berben, 2009) who investigated the relationship between the two constructs. This concept was relatively similar to Presage-Process-Product model (3P) developed by (Biggs, 1987; Prosser & Trigwell, 1999). The developed model from system theory was used to explain the continuous interacting between components; for example, the previous experience of teaching and learning has a relationship with learning process in context itself and learning outcomes. The students usually relate their study with perception of the context, approach to learning and desired learning achievement.

Firstly, ‘Presage’ referred factors exist prior to learning, which is categorized into personal and situational elements. The personal presage is an external factor inherited in students’ attitude, characteristic, experience and personality before the knowledge related to the academic learning based on the individual levels. So they might have different ability, understanding, perceptions and value toward the given learning tasks. Similarly, the situational presage refers to the external factor and learning environment the students experienced before the learning. Both factors are believed to predict direct influences on learning performance in many ways including the learning approaches of the students (Biggs, 1987).

Secondly, ‘Process’ involves students’ approaches to learning and their perceptions of learning environment that is characterized by appropriate assessment, appropriate workload, clear goals and standards, and good teaching. Richardson (2000) mentioned that these perceptions of learning environment are believed to influence the students’ approaches to learning, which were generally categorized in: deep and surface approaches found in (Marton & Säljö, 1976) the original research in Sweden. The
study was also in line with ongoing work in United Kingdom and Australia found in (Biggs, 1979; Entwistle & Ramsden, 1983). The deep approach involves in understanding the meaning of learning materials and surface approach is the orientation towards the ability to reproduce the materials for the purpose of assessment. These two approaches have become a powerful mean of modeling how students learn and improving the quality of learning outcomes. Additionally, Biggs (1979) identified third type of learning processing namely ‘achieving’ or ‘strategic’ approach that was generally associated the orientation toward achieving highest possible grades or marks. This approach can be a combination of deep and surface approach in which learners basically use in responding to requirement of context or assessment task. The strategic students are keener to maximize performance, academic recognition in order to gain highest score by using highly organized skills, managing time wisely and utilizing well-structured task. Therefore, the content, context and demand of certain learning task appeared to be correlated with a student’s choice of approach. A positive perception of learning environment (e.g. good teaching) is likely to improve deep and strategic approach to studying whereas negative perception (e.g. inappropriate workload) are likely to promote surface approach of student learning. Entwistle (2005) defined the three learning approaches by explaining the intension of each component. The deep approach was referred to self-understanding of the subject mater, the strategic approach was basically motivated by grades and the surface approach was related to coping with course requirements.

Table 1: Defining Feature of Learning Approaches

<table>
<thead>
<tr>
<th>Deep Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention – to understand ideas for yourself</td>
</tr>
<tr>
<td>- Relating ideas to previous knowledge and experience</td>
</tr>
<tr>
<td>- Examining logic and argument cautiously and critically</td>
</tr>
<tr>
<td>- Becoming actively interested in the course content</td>
</tr>
</tbody>
</table>
Strategic Approach

Intention – to achieve the highest possible grades
- Finding the right conditions and materials for studying
- Being alert to assessment requirements and criteria
- Gearing work to the perceived preferences of lecturers

Surface Approach

Intention – to cope with course requirements
- Studying without reflecting on either purpose or strategy
- Treating the course as unrelated bits of knowledge
- Memorizing facts and procedures routinely

Source: Entwistle, 2005, p.19

Table 1 indicated the intentions of deep, strategic and surface approaches by featuring the meaning of each component in detail. Entwistle (2005) mentioned that the deep learners tended to be active students, strategic learners were rather flexible, and surface leaners used more memorizing skills for their study. In order to measure these three approaches, Entwistle and Ramsden (1983) initiated a research instrument known as Approaches and Study Skills Inventory for Students (ASSIST). This inventory has its origins in the Approaches to Studying Inventory (ASI), which was initiated in the UK in the late 1970s. It was designed to indicate the relative strengths of students’ approaches in three main dimensions – deep, surface and strategic approaches in which the similar inventory can be found in (Biggs, 1993; Richardson, 2000; Entwistle & McCune, 2004). Later, the last version was developed by (Entwistle, McCune & Tait, 2013) adjusted to Revised Approaches to Studying Inventory (RASI) comprised of 52 items 13 sub-scales. Using 5-point scale, the average score from each item was basically used to investigate the levels, relationship and power of influence on the learning outcomes.

Thirdly, ‘Product’ is the student learning outcomes characterized in: 1) objective assessment of the learning output such as grades or score; 2) subjective measurement including students’ development of generic skills and course satisfaction (Biggs, 1987; Prosser & Trigwell, 1999). In overall, it was generally concluded that the interaction between prior experience and learning context (presage), interrelation
between student perception of learning environment and learning approaches (process), and what turn in their learning outcomes (product).

2.3 Concept of Learning Outcomes
The purpose of understanding the student learning is the intention to promote the high quality of learning outcomes. In reality, there are more variations in students’ learning outcomes such as the ways of understanding the materials and how much they have learnt. In this case, the learning outcomes were specified into three variables: academic achievement, generic skills development, and course satisfaction, which were adapted from (Lizzio, Wilson & Simons, 2002). Both aspects of quantitative and qualitative learning outcomes are presented based on the nature of the impact.

The academic achievement is measured by academic assessment system: Grade Point Average (GPA), which is broadly used by many countries including Cambodia and Thailand. The scale is ranked from low (<1.99), moderate low (2.00 – 2.49), moderate high (2.50 – 3.49) and high (3.50 – 4.00), where the high score generally means high achievement. GPA is standardized method of testing and measuring overall academic achievement for learning program the students are attending. However, GPA report can only be translated into the quantitative result of learning or achieved performance concerning the number or ranks being measured.

Generic skills development was considered one of the qualitative learning outcomes in this study. Ramsden (1991) designed Course Experience Questionnaire (CEQ) as an instrumental indicator and measurement of learning performance for the undergraduate students in Australia in order to improve quality of teaching and learning activities. CEQ has gained much interested in research work and later it was developed by Wilson, Lizzio and Ramsden (1997) suggested six learning-teaching components: Appropriate Assessment, Appropriate Workload, Clear Goals and Standards, Generic Skills Development, Good Teaching, and emphasis on Learning Environment, which comprised of 36 items in 6 scales. Each component was found to have positive relationship on each other that reflect on the different aspects of perceived quality of teaching and learning. Most previous research has used CEQ to measure the ‘Presage’ and ‘Process’ of student learning; however, Lizzio, Wilson and
Simons (2002) suggested that Generic Skills Development can be used to measure ‘Product’ or learning outcomes as this scale represented the transferable skills and ability gained from the course relevant to employability and concept of life-long learning including problem-solving skills, analytical thinking, dynamic teamwork, effective communication, ability to plan their work and improved level of confidence in tackling with situations. The generic skills development is one of the characteristics of qualitative result and performance perceived by the students. The student would be asked to fill in a self-report questionnaire, indicating the level of skills improvement as a result from the program and approaches they have used for their learning (Ramsden 1991; Wilson et. al, 1997).

The course satisfaction is another qualitative aspect of learning outcomes, measured by student’ responses to the overall course. For instance, ‘Overall, I am satisfied with the quality of this course,’ with 5-point scale from 1—strongly disagree, to 5—Strongly Agree. The term satisfaction refers the fulfillment of a desire, need and pleasure from performance or obligation. The course satisfaction means the quality or state of being satisfied toward the learning program and related academic activities that makes the study meaningful for the students. Ramsden (1992) stated that the learning approaches and course satisfaction demonstrate a reciprocal relationship in which some aspects of program satisfaction affected student learning approaches and perception of the learning environment. Bliuc, Ellis, Goodyear and Hendres (2011) also mentioned that the positive learning environment affected the level learning engagement, self-esteem, independent learning and students’ wellbeing that later influenced on the academic outcomes and satisfaction.

2.4 Relationships Between Learning Approaches and Learning Outcomes
As discussed earlier, the learning environment — appropriate assessment, appropriate workload, clear goals and standards, and good teaching are thought to be the predominant factors affecting students’ approaches to studying, then became predictors of the learning outcomes (Prosser & Trigwell, 1999; Watkins, 2001). There have been a number of previous research demonstrated the relationship between students’ approaches to learning related with the learning outcomes. From the literature, the deep and strategic learning approaches are expected to associate with
desirable learning outcomes when the surface approach is predicted to have unsatisfied outcomes (Drew & Watkins, 1998; Cano, 2005; Diseth, 2007). For instance, the students who use both deep and strategic approaches should be able to gain better score (GPA), higher quality of transferable skills and positive perception of course satisfaction meanwhile the surface approach student would receive lower score, poorer development of skills and lower satisfaction. For example, Lizzio, Wilson and Simons (2002) investigated the relationship between learning approaches and learning outcomes, confirming that the perceptions of teaching environments influence learning outcomes both directly perceptions to outcomes and indirectly the perceptions to approaches to outcomes. In the research work of Cano (2007), learning approaches were significant factors predicting students’ learning outcomes, indicating the higher usage of deep approach, the better learning result achieved by the students. Moreover, Entwistle, Tait and McCune, (2000) mentioned that the academic success was directly engaged deep approach to learning that rewarded by appropriate evaluation system. Cano (2005) and Watkins (2001) also confirmed that students who scored higher in deep and strategic approach gained higher level of learning achievement. However, in the study of Hasnora, Ahmadb and Nordin (2013) who investigated the influence of learning approaches on academic achievement among Malaysian students using self-reported survey using a sample size of 223 of university students. They found that deep and strategic approaches had no significant relationship with academic achievement when surface approach was found to have inverse correlation with learning outcomes, demonstrating that the more students used surface approach, the lower learning achievement they would have. Richardson (2003) also investigated relationship between approaches to studying and perceptions of academic quality in a short web-based course using 400 participants in United Kingdom. The result showed that the students who used surface approach obtained lower score in the exam, which was affected by the inappropriate assessment criteria given in the course. However, the academic attainment was positively related with student perception of academic quality and the utilization of strategic approach but negatively associated with their adoption of surface approach to learning. The students who rated the course as being of higher quality gained better score and the reason was explained by the positive feedback from the teachers. Çetin (2015) investigated the relationship between academic success, individual motivation and learning approaches among 536 students enrolled in teaching division of Canakkale
Mart University in Turkey. The result showed that the academic success (i.e. GPA) was positively related with deep approach but negatively associated with surface approach. The learning achievement was explained by the academic motivation and learning approaches (r=0.78), in which the motivation stimulated the deep approach and then affected the learning achievement.

Renshaw and Volet (1995) conducted comparative studies between South-East Asian and Australian students in using approaches to learning and tutorial participation in Austrian university. The result indicated that South-east Asian students used a systematic approach rather than rote learning in surface approach. They tended to use methodological and rehearsal learning strategies to understand the learning materials. The student perceived rehearsal strategies used repetition and various form of teachers, mentorship and peer support found very important in pursuing high level of learning goals while the Australian students preferred private and self-independent study to pursuit such goals. Biggs (2003) found that student selection of using surface approach was crucially related to assessment and inappropriate workload. Lizzio et al (2002) conducted a study using 5000 samples from interdisciplinary subjects of university students in Australia to understand the perceptions of the learning environment and academic outcomes. They found that surface approach was positively correlated with the quantitative learning outcome (GPA) and negatively associated with skills development. The learning assessment was explained to have an impact on surface approach to learning and then affected learning outcomes as expected by the curriculum. Entwistle and Entwistle (2003) also conducted a qualitative study investigating the interplay of memorizing and understanding, and the development of knowledge objects among 28 students who prepared for their final exam in psychology, medics, zoologists, biochemist, social science and business. The result found the linkage between understanding and memorizing in term of committing to memory and rote learning details that both contributed to production of knowledge. The recurring aspect of revision process was engaged in creation of knowledge objects and form of understanding. They also concluded that deep intention of learning could involve with rote memorization when surface approach to learning at university level can engage in the understanding.
Based on these findings, the current study would establish the hypotheses to investigate the relationships between learning approaches and learning outcomes and the possible influence of the variables in the contexts of Cambodia and Thailand.

2.5 Conceptual Framework

Biggs (1987) was one of the first researchers who attempted to model a relationship between students’ experience, their learning approaches and quality of learning outcomes. Many studies have considered the influence of learning approaches on the student learning outcomes such as (Entwistle & Tait, 1994; Prosser & Trigwell, 1999) have confirmed that subsequent impact between variables. For instance, Cano (2007) found that students’ academic outcomes were significantly determined by approaches to learning and their intelligence. The higher level of deep approach they use, the better academic performance they resulted when those students who employed surface approach showed less successful. Therefore, the learning approaches are hypothesized to have positively correlation the learning outcomes such as grade point average, generic skills development and course satisfaction. The independent variables—deep, surface and strategic approaches are the predictors of learning outcomes.

Figure 1: Conceptual Framework

Figure 1 illustrated the conceptual framework of this study that was adapted from Lizzio, Wilson and Simons (2002) who studied the relationship between university students’ perceptions of their academic environment, their approaches to study, and
academic outcomes at university levels in Australia. The study showed relevant theoretical and practical understanding that can be tested in other contexts; for example, in Cambodia and Thailand. However, because the previous study investigated only in a group of students who studied in Australia, it would be more interesting to adapt this conceptual framework to compare two university contexts in two different countries, having different culture of learning, curriculum, teaching and learning environment. The comparative study can provide more understanding how the students in different contexts learn and achieve their academic performance. By leaving out the presage factors that predominantly influenced on the learning approaches in the previous study, only the variables of learning approaches and learning outcomes were tailored to narrow down the scope due to time and budget limitations of the current study. This study used the Revised Approaches to Study Inventory (RASI) to measure the learning approaches and Course Experience Questionnaire (CEQ) to measure the learning outcomes (see Appendix 3). The mentioned conceptual framework was also used to create the research hypotheses.

2.6. EFL Learners in Cambodia and Thailand

This study focuses on student learning from Cambodia and Thailand so it might be related to ask if the construction of conception on approaches to learning, which was developed by (Entwistle & Ramsden, 1983; Biggs, 1979) and what aspects have influenced on their learning outcome, is relevant in these two contexts of non-Western culture of learning and is the established learning approaches reliable and valid in such cultures? In order to understand the learning behavior of Cambodian and Thai students, it is appropriate to consider the learning from Buddhist perspectives. The cultural, social and behavioral aspects of Buddhist principles have interrelated with ways of learning and educational link in both countries for many years ago. Buddhism is the religion of states in the two neighboring nations, in which 95% in Thailand and 95% in Cambodia are reported to be Buddhist followers. When it comes to the discussion about Thai students, Robertson and Nunn (2007) wrote that the belief of Karma ‘Cause & Effect of Action’ influences the aspects of learning success/failure, ambition and motivation, pragmatism, utilitarianism and authority that created traditional stereotype of Thai students as examination-oriented or goal-oriented. The classroom is mainly teacher-dependent who hold more power in teaching and
learning. Therefore, students are more accustomed to rote learning and memorizing technique compared to Western concepts of critical thinking. Baker (2008) mentioned that Thai education is traditionally valued as cooperative preservation to hierarchy and social order that simply used to avoid extreme emotional or confrontation such as higher status person, monks, senior people and teachers. Therefore, students always feel inappropriate to ask questions or are willing to express ideas in the classroom that prevented the students to actively interact to teachers or senior classmates. Adamson (2006) studied Thai cultural and social aspect of learning by indicating the three main factors that played roles in the student learning process: Theravada Buddhism, Thai Social Behavioral, and Thai Learners’ Behavioral aspects. These three main factors were believed to culturally and socially influence on the students learning that determined their learning outcomes and attitudes towards the study.

Table 2: Cultural and Social Aspect of Learning

<table>
<thead>
<tr>
<th>Theravada Buddhist Aspects</th>
<th>Thai Social Behavioral Aspects</th>
<th>Thai Learners’ Behavioral Aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karma</td>
<td>Success/failure</td>
<td>Goal-oriented</td>
</tr>
<tr>
<td>Self-compassion</td>
<td>Ambition &amp; Motivation</td>
<td>Novelty</td>
</tr>
<tr>
<td>Detachment</td>
<td>Individualism</td>
<td>Face</td>
</tr>
<tr>
<td>Wisdom</td>
<td>The Group</td>
<td>Large group classes</td>
</tr>
<tr>
<td>Self-reliance</td>
<td>Pragmatism/utilitarianism</td>
<td>Plagiarism</td>
</tr>
<tr>
<td>Respect for monkhood</td>
<td>Thinking</td>
<td>Book-oriented</td>
</tr>
<tr>
<td></td>
<td>Authority</td>
<td>Rote-learning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lack of critical analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Teacher-dependent</td>
</tr>
</tbody>
</table>

Source: Adamson, 2006, p. 151

Table 2 indicated the three aspects of learning behavior in the context of Thai students that related to social and cultural environment. Adamson (2006) investigated the potential influences of cultural Theravada Buddhism on the learning behaviors of Thai students who studied English language. The study showed the tentative interconnections between religion, social behavior and classroom behavior; however, it was intentionally not defined the degree of the relevance between those factors.
investigated. Saetang (2014) conducted a study on learning preference and classroom obstacles with 41 Thai students enrolled in science courses. The finding described Thai culture of learning as authoritarian structure, avoiding embarrassment, focusing collectivism that has significant impacted on emotional value and learning achievement of the students. The study indicated that the culture of authoritarian and personal student characteristics of emotional value have led to low self-confidence, silence and shyness in the classroom. Students feel uncomfortable to present their ideas in front of the class but preferred examination and quiz for learning.

Cambodian culture of learning shared similar norm of Thailand. Chhuon, Hudley and Macias (2006) explained that the central value of Cambodian culture is also Theravada Buddhist in which the Karmic law is the predomination of one’s fate, happiness or suffering. Cambodian attached themselves both culturally and spiritually to Buddhist principles that linked to teaching and learning in education (Smith-Hefner, 1999). The group conception of success is considered important in the culture and family tradition determines the success of someone’s career and educational achievement; therefore, some parents would not push their son/daughter into certain educational path in the belief of inherent ability, innate capacity for learning, natural gift and limitation of the students. Caniff (2001) conducted a comparative study between Cambodian and Vietnamese perceptions of cultural value on student learning performance. The finding showed that Cambodian family viewed children learning outcome as individualistic attitude while the Vietnamese viewed as collective manner or entire family standard. Cambodian parents are largely uninvolved in students’ learning activities and prefer to hand them over to teachers. Hence, students are largely dependent on teachers giving instruction and memorizing the book that has led to poor learning performance. Nguyen (2010) observed that Cambodian students are stereotyped as passive, lack of motivation and pessimistic; therefore, they are keener on grammar and reading rather than writing and speaking.

In order to improve learning process from passive and memory-based approaches to more active learning and critical thinking, Cambodia and Thailand have made a major reform on teaching and learning in classroom levels. Darasawang (2007) mentioned that Thailand stipulated the concept of student-centered approach in 1999 National Act but the most significant shift in teaching method from traditional teacher-based
approached to student-learning center took place in the national curriculum implementation in 2002 when Cambodia integrated the same approach in 2007 (MoEYS, 2007). Students were allowed to be more independent to find out the learning materials available at school and communities prior to the classes or presenting their ideas in both verbal and oral performance. Teachers played roles as facilitators rather than teacher-talk-time to assist students in making their learning more meaningful and self-dependent. At this point, to seek more information and knowledge, English language has played more important roles for students besides source of knowledge in their own languages that has opened students’ learning access wider to the world of knowledge.

Wongsothorn (2000) wrote Thai government encouraged the English use as medium instruction for international program in higher education, academic research and the access to information technology. However, Noomura (2013) pointed the main obstacles against the student-centered approach were related to heavy workload of teachers, inadequate equipped classroom, technological support and insufficient knowledge of English language among teachers. Plenty of students are still attached to traditional ways of learning, being passive, poorly self-motivated, lack of reasonability and unsatisfied result of English language proficiency. Thai university students showed poor reading skills and learning performance compared to ASEAN members that hindered the higher education demand. The cultural value, teaching methods and learning materials are the factors changing student learning perspective, method they adopted and learning approaches they chose to improve the learning outcomes.

Pawapatcharaidom (2007) conducted a study on English language problems and learning strategies of 30 undergraduates who enrolled in an international program at a university in Thailand. The finding indicated that most serious problem faced was writing skills followed by listening and reading in which this group was unable to complete assignment within limited time, correct use of grammatical rules, and unable to present their thoughts in a structural way. The language translation from L1 to L2 was found in this study that the students would compose Thai language first before translating into English texts for required assignment. The passive and rote learning at high school was the issue related to poor productive skills at tertiary level and the
university curriculum failed to promote proper learning approaches for students. This study found significant correlation between these problems with language learning strategies: metacognitive, cognitive, memory, compensation, affective and social strategies. However, Thai students most frequently used metacognitive strategy that helped them to coordinate their own learning process such as centering, arranging, planning and evaluating the language. There were other external factors impacted on their learning process. Phothongsunan (2014) investigated learning success of 2535 Thai university students learning English as medium instruction showed that teacher teaching styles has positively influenced on student learning strategies. Teachers play more roles in shaping students learning process and result. In the study of English learning motivation among 137 Thai university students, Kitjaroonchai and Kitjaroonchai (2012) found that instrumental motivation has significantly correlated with students learning achievement. The students were externally motivated to study English due to the importance of the language requirement in career opportunities in Thailand. According to the result of a comparative study of learning motivation between Cambodian and Thai undergraduates in learning English, Chumcharoensuk (2013) explained that majority of students from Cambodia and Thailand were extrinsic-instrumentally motivated to learn English due to the reasons of language necessity for career goals, improve living standard, accessibility to technology and future goals they have set. The extrinsic motivation of learning has been categorized in surface approach to studying that results in low learning outcome (Ramsden & Entwistle, 1983).

A number of studies showed that Cambodian and Thai students used similar learning strategies in foreign linguistic learning. Seng and Khleang (2014) conducted a study on language learning strategies adopted by Cambodian EFL learners with 159 undergraduates of English major, showed that students also used high level of metacognitive strategies for their learning process: planning, monitoring, evaluating and regulating language learning. The students showed low score in compensation strategies, which characterized as using synonym, guessing, and gestures in expressing the linguistic knowledge of English. The study also indicated that Cambodian students have moved from memorizing strategies to more active participation in the classes. The students might have used some other learning strategies to improve the learning performance. In the study of (Heng, 2013)
investigating factors influencing college students’ academic achievement in Cambodia, the result pointed out that the students’ attitude toward learning environment, pre-college experience and relationship with teachers have a positive influence on their learning outcomes. For instance, the institute has shifted the teaching method from teacher-based system to more student communicative learning approach that has an impacted on students learning outcomes in this case.

2.7 Research Hypotheses
The literature pointed out the relationship between the variables and the study comes to research assumptions by establishing the three main hypotheses below:

Table 3: Research Hypotheses

<table>
<thead>
<tr>
<th>H0A</th>
<th>The levels of learning approaches and learning outcomes are not different in the contexts of Cambodia and Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1A</td>
<td>The levels of learning approaches in Cambodia and Thailand are different</td>
</tr>
<tr>
<td>H2A</td>
<td>The levels of learning outcomes in Cambodia and Thailand are different</td>
</tr>
<tr>
<td>H0B</td>
<td>The learning approaches have no relationship with learning outcomes in the contexts of Cambodia and Thailand</td>
</tr>
<tr>
<td>H1B</td>
<td>The learning approaches are positively correlated learning outcomes in Cambodia</td>
</tr>
<tr>
<td>H2B</td>
<td>The learning approaches are positively correlated learning outcomes in Thailand</td>
</tr>
<tr>
<td>H3B</td>
<td>The relationships between learning approaches and learning outcomes are different in the two contexts</td>
</tr>
<tr>
<td>H0C</td>
<td>The learning approaches have no influence on learning outcomes in the two contexts</td>
</tr>
<tr>
<td>H1C</td>
<td>The learning approaches influence on learning outcomes in Cambodia</td>
</tr>
<tr>
<td>H2C</td>
<td>The learning approaches influence on learning outcomes in Thailand</td>
</tr>
<tr>
<td>H3C</td>
<td>The influences of learning approaches on learning outcomes are different in the two contexts</td>
</tr>
</tbody>
</table>

Table 3 explained the research hypotheses in three parts: A, B and C that were established in responding to the three main research objectives. The research hypotheses A was used to measure the levels of learning approaches and learning
outcomes attained by the undergraduate students in the two comparative contexts. However, there was a distinction between hypotheses B and C due to the nature of the research questions. The hypotheses B investigated basically the mutual relationship between the two variables that did not intend to explain casual relationship e.g. independent and dependent variables. However, the hypotheses C was necessarily created to check if the learning approaches could be used as the independent variable that could predict the learning outcomes as the dependent variable.
Chapter 3

Research Methodology

This study relied on research method developed by (Bray, Adamson & Mason, 2007; Bryman, 2012). In the area of international and comparative education, Bray and Thomas framework has demonstrated multilevel application for the educational comparative analysis. It highlighted a significant model for cross-national comparison in order to understand the holistic and multifaceted analyses of educational phenomena. The developed framework provided three-dimensional cube, which explains the units and levels of each components: (1) Geographic/locational, (2) Non-locational demographic and (3) Aspects of education and of society. There were seven levels precisely explained in the geographic dimension; six groups in the non-locational demographic groups; and seven aspects of education and society dimension. Giving in this systematic concept, the authors Bray, Adamson & Mason (2007) mentioned that the framework could be used to classify countries and institutions by comparing the policy, teaching and learning across the border if necessary. Adapting from this framework, it enabled the researcher to narrow down the scope and concentrate on the universities levels in two countries. Hence, this study focused on the comparison between two higher institutions in Cambodia and Thailand by selecting the level from the geographic dimension; other group in non-locational demographic; and teaching and learning methods in the aspects of education and society dimension. Since Cambodia and Thailand have been using English as a medium instruction for a number of international and local undergraduate programs, the comparative study between the two contexts would lead to deeper understanding of educational phenomena, approaches to learning, and expected academic achievements from the students stated in their educational objectives and reforms.

The comparative research method was applied in this study entailing two case universities located in Cambodia and Thailand in order to understand the nature of learning approaches by seeking the similar and different outcomes of the two contexts. The finding of the comparison provided a basis for statistical analysis and discussion. Bryman (2012) also mentioned that using cross-sectional design for two cases was the same to comparative method in data collection and analysis framework.
Therefore, collection of the information and data from each case at the same period of time could be possible and saving time for researchers.

3.1 Research Design
This study focused on the investigation of student learning approaches and its relations with learning outcomes. It sought to apply a theoretical analysis in two geographical contexts by measuring the level of perception and its relationship between variances in data parameters. It dealt with empirical and statistical data analyses. Hence, the most suitable research method was quantitative study and the appropriate research design was of cross-sectional nature used to examine the large number of surveys collected at a single point. Bryman (2012) stated that the quantitative method was aimed to clarify social phenomena based on numerical data of larger number and statistical interpretation involved with generalization to a certain population. Babbie (1995) also referred quantitative study to a systematic empirical investigation of quantitative phenomena and its relation, in which the objective was to employ mathematical model, theories or hypotheses concerning the phenomena. The author added that this type of research enables broader coverage, convenience and flexibility for the input in relation with population or events. It was conducted to solve problem that has not been clearly defined or the perceived problems does not exist. To identify and make educated guesses about scientific data observations, the most common study was engaged in deductive approach by examining the specific hypotheses in this study. The quantitative method often employed research instrument to gain the data including experiment, self-completion questionnaires, or structured interview. In this case, correlation coefficient calculus was adopted as the statistical research tool to investigate self-completion and response to the established hypotheses.

3.2 Sample Selection
This study had only five months from January to May to finish all phase of research. The data collection had only one month to process by adapting the questionnaires, sending out and waiting for the responses, which takes all time. Therefore, the current study chose to use convenient sample that can help to reduce the obstacles in accessing to data and research budget through the personal contact with university
administrators and instructors. Basically, the researcher asked approval via e-mail from each university administrator and head of the program by sending out a formal letter from the academic supervisor. After the letter was permitted, the researcher contacted the in-charge instructors from both universities to send the survey link to the targeted students. The students who were not in the eligible criteria or offered incomplete answers were removed from the study. The study was conducted in one public university Cambodia and one public university in Thailand, expecting to gain total responses of 180 from both universities (n=180) of the undergraduates enrolled in Bachelor of English major in academic year 2015-2016. Within the Faculty of Education, the convenient sample was targeted at those senior undergraduates with more learning experience of English language or supposedly having good proficiency level were asked to respond to the questionnaire. The data collection was conducted in English that helped saving more time and budget for questionnaire translation fee and back-translation in both Khmer and Thai to English language.

The selection of the two universities was based on similar nature of the undergraduate program in Teaching English as a Foreign Language, academic network and personal access through the administrator and instructors. Both universities are the members of ASEAN University Network that allowed a possibility for the study to compare. The selected university in Thailand is located in the eastern part of the country that was established in 1955 as the first regional tertiary education institute and well known for high-level teacher training. It is one of the prominent public universities in Thailand that provides fee-paying and grants on numerous educational levels including Bachelor’s Degree, Master’s Degree, and Doctoral Degree in Social Sciences, Health Science, and Science and Technology. The current total number of students admitted in this university is 46441 comprised of 36995 Bachelor’s Degree students, 8209 Master’s Degree students, 1116 Doctorate students, 67 Diploma students, and 54 Graduate Diploma students. There are about 20 universities across Thailand offering Bachelor of Education in Teaching English as a Foreign Language; however, each university has admitted about 30 – 45 students per year. Therefore, there are about 700 students enrolled in the English program every year across the country. In this study, the selected university provided 5-year program with 176 credits including one-year practicum at school levels for the current students approximately 120 in the
same academic year. However, only those students who studied in year 3, 4 and fresh graduates would be eligible to participate in the study.

One university in Cambodia was also chosen to conduct the study. It is the largest public university located in the capital city that was established in 1964. This university offers both fee-paying and scholarship to students in number of fields such as the Sciences, Humanities and Social Sciences, as well as vocational courses in fields such as Information Technology, Electronics, Psychology and Tourism. There are approximately 12000 of current students in the pool of Bachelor Degree, Master’s Degree and PhD program. One of the prominent faculties in this university is the foreign language institute that trains about 331 undergraduate students of English major per year. The students have to complete 120 credits in 8 semesters or 4-year program. Since there lacked of information about the total number of English major students from all universities across the country, the study focused only one university using 331 as the population. Those students who studied in year 3, 4 and fresh graduates were eligible to take part in this study.

3.3 Data Collection

This study used a self-completion forced choice questionnaire, which included a set of organized questions developed by (Ramsden, 1991; Entwistle & Tait, 1994) who checked the validity and reliability of each item. This study was a replica of their previous work studied in different time and context and currently being investigated in Cambodia and Thailand. For the ability to administer conveniently, the means of collecting data was online survey that is disseminated to students via in-charge teachers and friend network in order to keep confidentiality and maximize the number of respondents.

Bray, Adamson and Mason (2007) mentioned that by maintaining the indirect contact between researcher and participants would provide a detached scientific result and objective view, which was important in quantitative research. For the method selection, the current study has taken some parts of the previous study using modified questionnaire to investigate the main variables. In order to measure the independent variables, the RASI questionnaire consisted of 52 statements was used to examine the
students’ learning approaches—deep, strategic and surface as the predictor variables of the learning outcomes. To measure the dependent variables, there were only 6 items of Generic Skills Development scale selected from CEQ structure, 1 item of GPA question, and 1 item of overall program satisfaction question. Therefore, there were totally 60 items used in this study to examine the two main variables. The reason to choose only 6 questions out of 36 items from CEQ was related to the argument by (Lizzio, Wilson & Simons, 2002) that Generic Skills Development scale belonged to the learning ‘Product’ or outcome when the rest of 30 items in other scales were basically used to measure learning ‘Presage’ and ‘Process’. Having adapted some parts of CEQ, the researcher selected only most relevant scale by using only the 6 items to measure the levels of learning outcomes attained by the students in the two contexts. Moreover, there was one item of GPA self-reported questionnaire that required the students to respond either in grade interval, numeric data or grade in letters (Appendix 4):

- A = 4.00 GPA = 85% - 100% Excellent  
- B+ = 3.50 GPA = 80% - 84% Very Good  
- B = 3.00 = GPA = 70% - 79% Good  
- C+ = 2.50 GPA = 65% - 69% Fairly Good  
- C = 2.00 GPA = 50% - 64% Fair  
- D+ = 1.50 GPA = 45% - 49% Poor  
- D = 1.00 GPA = 40% - 44% Very Poor  
- F = 0.00 GPA = < 40% Failure

According to the pilot study (Vann, 2016), there were few students from Cambodia who reported their grades in letters because the GPA system has just been introduced to Cambodia in 2004, requiring time for the students to be familiarized. However, the higher education institutions in both countries at the present are using the same standardized GPA grading system in interval scale. This study transformed the numeric data and grade in letters to interval scale from 1.00 – 4.00 GPA that is computable with the SPSS program. The Likert scales of 1 - 5 levels used to indicate the level of agreements such as (1 - Disagree and 5 - Strongly Agree). Having learned English as medium instruction, the students were required to fill in the questionnaires
by using English language after having minor changes of few difficult wording and phrases to make the items more understandable by the participants.

Bryman (2012) pointed out that different locations or countries would cost more in budgeting and be time consuming for the researcher. The data collection method, instrument and data analysis were sometimes not genuinely equivalent when researchers might face some difficulties in accessing data in some culture or nations. Therefore, this study has chosen an online survey technique for data collection in the two countries. The head of department and lecturers of each university were approached to disseminate the information to the students. In this case, a set of questionnaires (see Appendix 1) was used to identify students’ experience on self-rating perception in which the reliability and validity of each items were already checked by the previous studies showing the moderate levels of internal consistency Cronbach’s alpha of 0.70.

The data collection procedure started from having prior contact to the university administrator and lecturers responsible to check the possibility of the access. After having modified the questionnaires, the researcher used Google Survey as a tool to input all relevant questionnaire and attached the headline with consent form. By clicking on the consent form on the first page, the participants would understand the total volunteer participation yet they may also choose to discontinue during the process. The questionnaire was estimated to have duration of completion approximately 20 minutes. Having introduced the researcher background and purposes, the researcher asked the agreement to gain their personal perception on their learning experience, academic outcome and course satisfaction. Every item was required to fill in accept the students’ names are optional preference for the confidentiality. It had to guarantee the participant’ identity, names of the institutions and other related confidential information given in this study by keep the data anonymous, coded and destroyed after the study completion. To gain more reliable responses, the informants were encouraged to avoid the scales number 3 or unsure answer in the questionnaires during the process. To the end of the section, the researcher appreciates and thanks to the informants who spent their valuable times involving in the study in the last page of the survey. The participants hold their rights to ask for a copy of research result and future contact for more details of the study via
email address. After the completion, the data from both universities was collated and coded and the questions were thematized into analyzable units.

The questionnaires were sent out to the students in the two countries, approximately one-month completion in March 2016, to be filled in the 60 items via the online survey. There were up to three follow-up emails sent to the in-charge teachers in order to achieve the maximum response rate. The study expected to gain 90 samples from the total 120 populations from Thailand and 90 students from the total population of 331 students from Cambodia. Due to some lacks of responses from both universities, the researcher decided to extend the samples to some fresh graduates through the same in-charge instructors and personal contacts with the students via email. As a result, there were totally 97 responses from Cambodia and 89 responses from Thailand, which were good enough to produce valid and reliable total sample as expected.

3.4 Data Analysis

To analyses the data, the Statistic Package for Social Science (SPSS) computer program in version 23 was used in the study in order to measure the level, relationship and coefficient correlation between learning approaches and learning outcome variances. The mathematical method including Frequency (f), Mean (x) and Standard Deviation (S.D) were used to interpret the mathematical value of the items. From the 5-point Likert scale, Best (1970) suggested a formula to calculate the level between variables:

- 4.21 - 5.00: Highest levels of responses, indicating students strongly agree with learning approaches and learning outcomes
- 3.41 - 4.20: High level of responses, meaning that the students agree with learning approaches and learning outcomes
- 2.61 - 3.40: Medium level of response, showing that the students agree learning approaches and learning outcomes
- 1.81 - 2.60: Low level of response, pointing out that the students agree with learning approaches and learning outcomes
- 1.00 - 1.80: Lowest level of responses, revealing that the students agree with learning approaches and learning outcomes
To measure the correlation relationship, the Pearson’s correlation coefficient range from –1.00 to +1.00 was used to analyze the relationship. The number 0 indicates no relation and the value at 0.5 was significant relations between variables (Johnson & Christensen, 2014). The relationship between value of nominal level and strength of the relationship was mentioned by Healey (2010): 1) when the value was less than 0.10, the relation between the two variables is weak; 2) when the value was between 0.11 and 0.30, the relation between the two variables was moderate; 3) when the value was greater than 0.30, the relation between the two variables was strong. Then, the multiple regression method was used to investigate the predictor variables and learning outcome variables. Mostly commonly, the regression model was to explore the relationship between variables expressed in interval data such as numerical test score or numerical measure of performance. The Pearson product-moment correlation or “R” was used to correlate and predict the level of relationship (Charles & Mertler, 2002). The regression was used to determine the degree of correlation between the two variables and particularly testing the affect of learning approaches on learning outcomes mentioned in the model:

\[ Y = \beta_0 + \beta_1X_1 + \beta_2X_2 \cdots + \beta_pX_p + \varepsilon \]

- Y – the random outcome of the dependent variables
- \( \beta_0 \) – regression constant
- \( \beta_i \) – partial regression coefficient
- \( \varepsilon \) – Random error term
- p – the number of independent variables

3.5 Ethical Consideration

This study was primarily involved with collection students’ perceptions so it was crucially important to consider the ethical principal in social research (Bryman, 2008). First of all, the informants were well informed about the purposes of the study and what was required from them in a consent form (see Appendix 2) that complied with Swedish Government requirement ethical conduct. The participation was totally voluntary and the responses would be later used for the academic purposes. Based on ethical conduct, the participants’ identity and name of institution were kept strictly
confidential and would not be revealed to a third party or in any publications. Student responses were securely anonymized and coded. Therefore, an agreement was made before the survey and the informants had the rights to quit anytime during the process or request a copy result of the study.
Chapter 4
Research Findings

In this section, the data gained from 186 samples of respondents including 97 informants from a university in Cambodia and 89 informants from a university in Thailand. This data was analyzed and measured against the established hypotheses. Firstly, the descriptive statistics examined the levels of learning approaches and learning outcomes whether the variables obtained higher or lower results in comparison. Secondly, the correlational analysis was then presented to identify the relationships between the variables. Toward the end, the coefficient correlation was performed to measure the strength and power of predictors on learning outcomes in the two groups.

4.1 Descriptive Result

The descriptive analysis presented the levels of learning approaches and learning outcomes. The group statistics showed the summary of Means and Standard Deviation, explaining average scores gained from the data collection. Also, the independent-sample t-test was used to compare means of the two groups.

Table 4: Level of Academic Achievement

<table>
<thead>
<tr>
<th>Level of Grade Point Average (GPA)</th>
<th>Cambodia</th>
<th></th>
<th>Thailand</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>Low (00 - 1.99)</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1.1</td>
</tr>
<tr>
<td>Moderate Low (2.00 - 2.49)</td>
<td>4</td>
<td>4.1</td>
<td>17</td>
<td>19.1</td>
</tr>
<tr>
<td>Moderate High (2.50 – 3.49)</td>
<td>65</td>
<td>67.0</td>
<td>40</td>
<td>44.9</td>
</tr>
<tr>
<td>High (3.50 – 4.00)</td>
<td>28</td>
<td>28.9</td>
<td>31</td>
<td>34.8</td>
</tr>
<tr>
<td>Total</td>
<td>97</td>
<td>100</td>
<td>89</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4 presented the academic achievement (i.e. GPA) in four levels: high, moderate high, moderate low and low scales that measured the self-reported scores by C group (n=97) and T group (n=89) in academic year 2015-2016. The result illustrated slight differences in students’ academic achievement where T group tended to gain better
percentage points in High GPA (3.50–4.00) of 35% whereas C group had lower percentage of 29%, meaning that about 29 out of 100 students obtained high GPA for C group compared to 35 students for T group. It was remarkable that both groups have received the same average level in the Moderate High (2.50–3.49). On average, C group has attained 67% and T group has gained 45%, indicated the number of students from C group was getting higher percentage points than the T group. Most of the students from each university achieved moderate high score. However, there were not many students who scored in Moderate Low (2.00–2.49) which T group has 19% and C group obtained only 4%. The table also showed that there was only 1% of T group has the low achievement of GPA < 2.00 when C group was reported none. In comparison, the T group has achieved higher percentage in High Level whereas the C group has achieved higher percentage in Moderate High Level of GPA score, which reflected fairly good academic achievement in both groups.

Table 5: Group Statistics

<table>
<thead>
<tr>
<th>Approaches</th>
<th>Nationality</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deep</td>
<td>Cambodia</td>
<td>97</td>
<td>3.79</td>
<td>.45</td>
<td>.05</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Thailand</td>
<td>89</td>
<td>3.54</td>
<td>.50</td>
<td>.05</td>
<td>High</td>
</tr>
<tr>
<td>Strategic</td>
<td>Cambodia</td>
<td>97</td>
<td>3.56</td>
<td>.52</td>
<td>.05</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Thailand</td>
<td>89</td>
<td>3.57</td>
<td>.51</td>
<td>.05</td>
<td>High</td>
</tr>
<tr>
<td>Surface</td>
<td>Cambodia</td>
<td>97</td>
<td>3.25</td>
<td>.35</td>
<td>.04</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Thailand</td>
<td>89</td>
<td>3.15</td>
<td>.31</td>
<td>.03</td>
<td>Medium</td>
</tr>
<tr>
<td>Skills</td>
<td>Cambodia</td>
<td>97</td>
<td>3.93</td>
<td>.60</td>
<td>.06</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Thailand</td>
<td>89</td>
<td>3.73</td>
<td>.74</td>
<td>.08</td>
<td>High</td>
</tr>
<tr>
<td>GPA</td>
<td>Cambodia</td>
<td>97</td>
<td>3.12</td>
<td>.43</td>
<td>.04</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Thailand</td>
<td>89</td>
<td>3.09</td>
<td>.62</td>
<td>.07</td>
<td>Medium</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Cambodia</td>
<td>97</td>
<td>3.98</td>
<td>.91</td>
<td>.09</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Thailand</td>
<td>89</td>
<td>3.78</td>
<td>.89</td>
<td>.09</td>
<td>High</td>
</tr>
<tr>
<td>Outcome</td>
<td>Cambodia</td>
<td>97</td>
<td>3.68</td>
<td>.49</td>
<td>.05</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Thailand</td>
<td>89</td>
<td>3.53</td>
<td>.56</td>
<td>.06</td>
<td>High</td>
</tr>
</tbody>
</table>
Table 5 showed means and standard deviation that measured the levels of learning approaches (i.e. deep, strategic, surface) and levels of learning outcomes (i.e. skills, GPA, satisfaction) achieved by both groups. There were only two levels: High and Medium presented in this table.

From the result of learning approaches, the two groups utilized deep and strategic approaches at the same high level and also used surface approach at the same medium level. For instance, C group embraced high level of deep approach (M=3.79, SD=0.45), strategic approach (M=3.56, SD=0.52) while T group adopted high level of deep approach (M=3.54, SD=0.50), strategic approach (M=3.57, SD=0.51). It can be implied that the two groups have deliberate intentions to understand the meanings of learning materials by relating ideas to previous knowledge and experience, examining logic and argument cautiously and critically, and becoming actively interested in the course contents of what they learned (i.e. deep approach). At the same time, they also aimed to maximize the possibility to gain highest score through putting consistent effort into studying, finding the right conditions and materials for studying, managing time and effort effectively, being alert to assessment requirements, and gearing work to the perceived preferences of lecturers (i.e. strategic approach). Also, the two groups used surface approaches at medium level for C group (M=3.25, SD=0.35) and T group (M=3.15, SD=0.31), showing the medium level of intention to cope with the course requirement by studying without reflecting on either purpose or strategy, treating the course as unrelated bits of knowledge, memorizing facts and procedures routinely, finding difficulty in making sense of new ideas presented and feeling undue pressure and worry about work.

The table also indicated the remarkable levels of learning outcomes in the two groups. Both groups have developed generic skills and feeling satisfied at the same high level. For example, the C group was filled with high level of course satisfaction (M=3.98, SD=0.91), generic skills development (M=3.93, SD=0.60) while the T group has high level of course satisfaction (M=3.78, SD=0.89), generic skills development (M=3.73, SD=0.74). The result implied that the students from both groups were highly satisfied with program showing a quality or state of being satisfied toward the learning program and related academic activities that makes the study meaningful. At the same time, they also have developed their generic skills that were transferable and relevant
to employability including problem-solving skills, analytical thinking, working as a team, communication, ability to plan their work and level of confidence in dealing with news situation. It can be noticed that both generic skills development and course satisfaction were categorized in qualitative learning outcome that both groups achieved at high level; therefore, the intension of the course objectives in the two contexts have been accomplished in term of qualitative result. However, both group achieved medium level of GPA outcomes for C group (M=3.12, SD=0.43) and T group (M=3.09, SD=0.62) illustrated that the course objectives have achieved quantitative outcome at fairly good level in the two groups.

4.2 Levels of Learning Approaches and Learning Outcomes

In order to identify the similarities and differences of means between two groups, Independent Sample T-Test was performed to compare the values and find out the significant differences of each component.

Table 6 showed the result of Independent Sample Test that compared means between learning approaches (i.e. deep, strategic, surface) and learning outcomes (i.e. skills, satisfaction, GPA) to seek out the differences between the two groups. In order to reject or accept the established hypotheses, the result of T-Test was necessary to perform in this case. By comparing means of deep approach in C group (M=3.79, SD=0.45) and T group (M=3.54, SD=0.50), the result showed significance of variances at level t(184)= 3.62, p =.00 indicating a statistical difference in scores with 95% confidence interval for the difference from 0.11 to 0.39. Therefore, it explained that the C group used higher deep approach to learning compared to T group. For the strategic approach, the test score showed no significant difference in means between C group (M=3.56, SD=0.52) and T group (M=3.57, SD=0.51), the equality of means at t(184)=−0.05, p= 0.96 with 95% confidence interval displayed from −0.15 to 0.15. Therefore, it can be translated that both groups used strategic approach to learning exactly at the same level. In other word, there was no different between the levels of using strategic approach in the two groups. From the test score of surface approach of means in C group (M=3.25, SD=0.35) and T group (M=3.15, SD=0.31), the result demonstrated significant differences in means between the two groups at t(184)= 2.04, p=0.4 suggested that C group embraced higher level of surface approach.
In this case, it can be concluded that C group was motivated to memorize the learning materials and reproduce the knowledge in order to pass the course than the T group.

Table 6: Result of Independent Sample Test

<table>
<thead>
<tr>
<th></th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig</td>
<td>t</td>
</tr>
<tr>
<td>Deep</td>
<td>Equal variances assumed</td>
<td>1.18</td>
<td>.28</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.41</td>
<td>.52</td>
<td>-0.05</td>
</tr>
<tr>
<td>Surface</td>
<td>Equal variances assumed</td>
<td>1.48</td>
<td>.23</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>2.06</td>
<td>183.72</td>
</tr>
<tr>
<td>Skills</td>
<td>Equal variances assumed</td>
<td>1.50</td>
<td>.22</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>1.99</td>
<td>170.27</td>
</tr>
<tr>
<td>GPA</td>
<td>Equal variances assumed</td>
<td>16.34</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>.46</td>
<td>156.05</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Equal variances assumed</td>
<td>.57</td>
<td>.41</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>1.54</td>
<td>183.34</td>
</tr>
<tr>
<td>Outcome</td>
<td>Equal variances assumed</td>
<td>2.33</td>
<td>.13</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>1.88</td>
<td>175.01</td>
</tr>
</tbody>
</table>
To summarize the differences of means level of learning approaches, the result showed that C group has gained higher level of using deep and surface approaches but both groups indicated the same level of utilizing strategic approach. This can be concluded that the levels of learning approaches in both groups were showing different; therefore, the study rejected the established hypothesis (H0A) and consequently accepted the hypothesis (H1A) confirmed that that the levels of learning approaches in the contexts of Cambodia and Thailand were different.

The result compared means levels of learning outcomes (i.e. generic skills development), there was significant difference in means pointed out in the result between C group (M=3.93, SD=0.60) and T group (M=3.73, SD=0.74) showing the equality of means at t(184)=2.01, p=0.05 with the 95% confidence interval from 0.00 to 0.39. Hence, the result explained that C group has developed generic skills higher than the T group. However, by comparing means of GPA score between C group (M=3.12, SD=0.43) and T group (M=3.09, SD=0.62) illustrated no significant difference in means score t(184)=46, p=64 with the 95% confidence interval from –0.12 to –0.19. Thus, the two groups have achieved the same level of GPA outcomes. The result also indicated that there was no significant difference of means in course satisfaction t(184)=1.54, p=0.12 between C group (M=3.98, SD=0.91) and T group (M=3.78, SD=0.89) with 95% confidence interval displayed from –0.06 to 0.47. Therefore, both groups have been relatively satisfied with the course at the same level.

In short, the result from the table illustrated both groups experienced the same levels of course satisfaction and GPA outcomes accepted one component showed the different means of generic skills development in the two groups. Therefore, the result can be translated that the overall levels of learning outcomes between the two groups were not different, having C group (M=3.68, SD=0.49 and T group (M=3.53, SD=0.56) at level t(184)=189, p=0.6 with 95% confidence interval displayed from –0.01 to 0.30. This result enabled the study to reject the established hypothesis (H2A), confirming that the levels of learning outcomes in the contexts of Cambodia and Thailand are not different.
Table 7: Hypotheses Result 1

<table>
<thead>
<tr>
<th>Hypotheses Result</th>
<th>Cambodia</th>
<th>Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>H0A. The levels of learning approaches and learning outcomes are not different in the contexts of Cambodia and Thailand</td>
<td>Rejected</td>
<td>Rejected</td>
</tr>
<tr>
<td>H1A. The levels of learning approaches in Cambodia and Thailand are different</td>
<td>Accepted</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2A. The levels of learning outcomes in Cambodia and Thailand are different</td>
<td>Rejected</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

In responding to research question one: what are the levels of learning approaches and learning outcomes attained by the undergraduate students enrolled in Bachelor of English in the contexts of Cambodia and Thailand? Are they comparatively different? The study found that the two groups have employed different levels of learning approaches where C group has higher levels of using deep and surface approaches than the T group; however, both groups gained the same levels of learning outcomes despite of the different uses in learning approaches.

4.3 Relationships between Learning Approaches and Learning Outcomes
The Pearson product-moment correlation (r) was used to measure the strength and direction of linear interaction between the explanatory variables (i.e. learning approaches) and response variables (e.g. learning outcomes). Based on the correlation coefficient range from –1.00 to +1.00 formula was used to analyze the relationship of each component. The value of number 0 indicates no relation and the value at 0.5 is significant relation between models (Johnson & Christensen, 2014). The relationship between value of nominal level and strength of the correlation is significant: (p< 0.10) indicated weak relationship; (p= 0.11 to 0.30) the relation is moderate; (p > 0.30) the relation between the two variables is strong.
### Correlations

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** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

### Correlations

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** Correlation is significant at the 0.01 level (2-tailed).
Table 8 reported the correlation result of learning approaches (i.e. deep, strategic, surface) and learning outcomes (i.e. skills, GPA, satisfaction) in two comparative contexts of Cambodia and Thailand.

Firstly, the result from C group indicated a positive relationship between deep approach and two sub-components of learning outcomes: generic skills development ($r=.63$, $p=.00$) and course satisfaction ($r=.43$, $p=.00$) but lacked of relationship with GPA ($r=.18$, $p=.08$). It can be explained that using deep approach did not influence on students’ learning outcomes related to GPA for C group but significantly increased both developing skills and students’ satisfaction. However, there was as strong relationship presented between deep approach and overall learning outcomes at significant level ($r=.58$, $p=.00$), meaning that the more students use deep approach, the better learning outcomes would result, particularly in the aspect of qualitative learning outcome rather than quantitative GPA. Moreover, the data showed that the C group also used strategic approach to learning at high level and such approach was found a positive correlation with skills development ($r=.51$, $p=.00$), GPA achievement ($r=.24$, $p=.02$) and course satisfaction ($r=.31$, $p=.00$) and respectively has a significant relationship with the main component of learning outcomes ($r =.47$, $p=.00$). This can be implied that the students who used strategic approach in learning process have statistically significant influenced on the students learning outcomes both qualitatively and quantitatively. In other word, the learning outcomes were strongly affected by the strategic approach in C group where the students were encouraged to maximize their possibility in gaining highest grades and learning outcomes as possible. Nonetheless, it was remarkable that the result rejected the relationship between surface approach with skills development ($r= –.16$, $p=.11$), GPA ($r= –.06$, $p=.57$), course satisfaction ($r= –.09$, $p=.38$) and also presented negative correlation with overall learning outcomes at level ($r= –.14$, $p=.17$). This result suggested no evidence of interaction or influence between the models.

Secondly, the result of T group indicated the deep approach has a positive relationship with all components of learning outcomes: generic skills development ($r=.71$, $p=.00$), GPA achievement ($r=.24$, $p=.02$), course satisfaction ($r=.47$, $p=.00$) and overall learning outcomes ($r=.65$, $p=.00$). It can be referred that deep approach to learning greatly increased skills development, GPA score, level of satisfaction and ultimately
learning outcomes. The higher use of deep approach would positively influence on both qualitatively and quantitatively learning outcomes. Similarly, the strategic approach was also found to significantly correlate with two sub-variables: skills development (r=.73, p=.00), course satisfaction (r=.52, p=.00) and overall learning outcomes (r=.66, p=.00) but negatively correlated with the GPA (r=.20, p=.06). It meant that using strategic approach played no role in increasing academic score (i.e. GPA) but significantly improved skills development and stimulated students’ satisfaction. Therefore, using strategic approach has influenced on qualitative learning outcome rather than quantitative aspect in T group. Similarly the surface approach was also illustrated a positive relationship with two sub-components: skills development (r=.52, p=.00), course satisfaction (r=.38, p=.00) and overall learning outcomes (r=.46, p=.00); however, it was negatively correlated with GPA (r=.10, p=.34), indicating that the utilization of surface approach did not influence on academic achievement (i.e. GPA) but positively associated with enhancing skills development and satisfaction. By comparing correlation results between the two groups, the study revealed the learning approaches have strong positive relationships between two approaches (i.e. deep, strategic) with the learning outcomes. For instance, the learning outcomes for C group had a positive relationship with deep approach (r=.58) and strategic approach (r=.47), which were relatively weaker than the T group having positive relation with strategic approach (r=.65) and deep approach (r=.66). Interestingly, the study also indicated the two groups differed in relationship between adoption of surface approach and learning outcomes. It was found no correlation between the models in C group but the surface approach had positive connection with learning outcome (r=.46). That can be implied that the more students use memorizing skills, the better learning qualitative learning outcomes (i.e. developing generic skills, satisfaction). This result would be discussed further in the next section.
Table 9: Hypotheses Result 2

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<th>Hypotheses Results</th>
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<td>H2B. The learning approaches are positively correlated learning outcomes in Thailand</td>
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<td>H3B. The relationships between learning approaches and learning outcomes are different in the two contexts</td>
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</table>

To answer research question two, how do the relationships between learning approaches and learning outcomes correlate in the two contexts? Are they comparatively different? The study found the significant relationship between learning approach and learning outcomes in the two contexts; therefore, the evidence was used to reject the established hypothesis (H0B). From the result main variable, there was a strong correlation between two learning approaches (i.e. deep, strategic) and learning outcomes for C group that enabled the study to accept the hypothesis (H1B) and the similar result in T group at level that can be used to confirm the significant relationship of the model in all sub-components, accepting the hypothesis (H2B). According to table 8, there was a positive correlation between main variables learning approaches and learning outcomes for C group ($r= .41$) and also T group ($r= .69$), demonstrated the correlation coefficient for T group was higher than the context of C group in comparison. This result indicated the different strength of the significant relationship between the variances that can be used to accept the hypothesis (H3B), confirming the differences of the relationships in the two contexts.

4.4 Predictability of Learning Approaches on Learning Outcomes

The analysis of variances (ANOVA) was used to determine whether the factors and interactive influence was statistically significant by comparing the p-value of learning approaches and learning outcomes. In order to examine the significance level and
access the null hypothesis, the p-value was expected to score less than (p< .05) that could possibly used to explain the significant influence of the variables. Also, the method of multiple linear regression analysis (R²) coefficient of determination was computed to predict student’ learning outcomes between the two studied groups. The students’ learning approaches (i.e. deep, strategic, surface) used as the predictor variables to measure academic outcomes (i.e. skills, GPA, satisfaction). Prior to the presentation of the prediction result, the study should be able explain the relationships in the established hypotheses and to test the significant connection between the models. According to the ANOVA result (see Table 10), the finding showed statistically significant affect of learning approaches on learning outcomes in C group at level f(3,93)=17.4, p<.05, and T group at level f(3,85)=26.3, p<.05. Therefore, the null hypothesis (H0C) was rejected that allowed the study to investigate further the degree of strength of relationships between each component.

In order to response to the research question three, to what extent can learning approaches affect learning outcomes in both contexts? Are they comparatively different? The result showed that the learning approach significantly influenced on learning outcome at (p<.05) in C group, indicated strong relationship between variables that can be used to accept the hypothesis (H1C). Similarly, the result in T group also indicated the significant affect of learning approaches on learning outcomes at level (p<.05); therefore, the evidence was used to confirm the hypothesis (H2C) respectively. The comparative levels of influences in the two groups were based on the results of Correlation Coefficient (see Table 11) that was being used in the next discussion to identify the similarities and differences.

Table 10 and Table 11 showed the result of ANOVA together with coefficient correlation between the explanatory variable and the response component followed by the model summary that explained the strength of the relationship of the predictors. For the C group, the ANOVA result demonstrated statistically significant variables at level f(3,93)=17.4, p<.05 enabled the regression model using three predictor variables (i.e. deep, strategic, surface) approaches to explain the learning outcome (R² = .36) of the variance. The strongest predicative component was associated with deep approach (β=.48) followed by strategic (β=.13) and surface (β= -.12) in Coefficients result (see Table 11). The result inferred that about 36% of learning outcomes among C group
were explained by learning approaches while more than 64% could be explained by other factors. However, the success of learning outcomes was not determined by the three main approaches since the significant relationship was presented in variation. To access the statistical significance of the result and check the accurate significant contribution to the prediction of the learning outcomes, the next regression model using deep and surface predictors were performed. The result found the statistical significance at level $f(2,94)=25.4$, $p<.05$, showing a strong relationship between the model where ($R^2 = .35$) of the variance. Deep approach still remained in strongest relationship that determined the learning outcomes ($\beta=.58$) when the surface approach was no longer a significant predictor ($\beta= -.12$, $p>.05$). Therefore, in order to examine the most accurate predictor of the variance, the next regression model using only deep approach as the main predictor of the academic outcomes. The result demonstrated that the deep approach was statistically significant at $f(1,95)=48.4$, $p<.05$, making a unique contribution of prediction to the learning outcomes ($R^2= .34$) and the level of strength ($\beta=.58$). The finding concluded that about 34% of deep approach to learning can measure the learning outcomes when the rest of the 66% was explained by other related factors.
### ANOVA

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a. Dependent Variable: Outcomes  
b. Predictors: (Constant), Surface, Strategic, Deep  
c. Predictors: (Constant), Surface, Deep  
d. Predictors: (Constant), Deep

### Model Summary

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a. Predictors: (Constant), Surface, Strategic, Deep  
b. Predictors: (Constant), Surface, Deep  
c. Predictors: (Constant), Deep
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</table>

*a. Dependent Variable: Outcomes*
From the coefficients correlation table, the result drew a regression equation for a learning model that C group can use to measure the learning outcomes for the undergraduate students below:

→ Leaning Outcomes = 1.79 + 0.52 Deep* + 0.12 Strategic – 0.16 Surface

Table 10 also showed ANOVA results that indicated the significant coefficients correlation of the variances in T group. The regression model using the learning approaches (i.e. deep, strategic, surface) as the determinants of the learning outcomes. The result pointed out the statistical significance at $f(3, 85)=26.3$, $p<.05$ with the strongest predictors of strategic approach ($\beta=.38$) followed by deep approach ($\beta=.28$) and surface approach ($\beta=.11$). The power of predictability was ($R^2=.48$), showing that 48% of learning outcomes were influenced by the three types of learning approaches. However, since the relationship of surface approach was rather weak, the next regression model only tested the deep and strategic approaches in order to investigate the most reliable contribution of the prediction. The result showed statically significant at $f(2, 86)=38.8$, $p<.05$, the confidential level of prediction ($R^2=.47$) determining the learning outcomes. The result indicated 47% level of learning outcomes was predicted by strategic and deep approaches to learning with the strongest predictor variables of strategic approach ($\beta=.41$) and deep approach ($\beta=.32$). Hence, regression model suggested a regression equation that can explain the learning outcomes for T group below:

→ Learning Outcomes = 0.34 + 0.32 Deep* + 0.41 Strategic* + 0.19 Surface

In comparison, the correlation coefficients rest showed different results of the significant influences of learning approaches on learning outcomes in the two contexts. Therefore, this evidence was use to accept the established hypothesis (H3C), confirming that levels of predictive power on learning outcomes were different in the two contexts.
Table 12: Hypotheses Result 3

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Based on the result in Table 8, the Correlation Coefficient between learning approaches and learning outcomes showed significant different relationship between the two groups where C group (r=.48) and T group (r=.69), showing the level of coefficient of T group was higher. Hence, the influences of learning approaches on learning outcomes were different in the two contexts that the result can be used to accept the hypothesis (H3C). By looking the degree of influence in sub-components, the result also showed differences of determination types of approaches that can predict the learning outcomes in the two groups. Each component of the learning approaches was examined by using the multiple linear regression method and the study found that the learning outcomes ($R^2=.34$) can be predicted by using only one type of learning approaches (i.e. deep) for C group which was relatively lower than the power of predictability in T group using two types of learning approaches (i.e. strategic, deep) on the learning outcomes ($R^2=.47$). Leaving out the surface approach that has no role affecting the learning outcomes in both contexts, the result illustrated the learning outcomes can be explained 34% by using deep approach for C group and predicted 47% by strategic and deep approaches for T group while the rest of the percentage can be explained by various factors.

In short, the finding showed some ground evidence that using deep approach to learning in Cambodian context can be successful or gaining better learning outcomes whereas it was also important to understand that using only deep approach cannot be
the case in Thai context of learning. The combination of strategic and deep approaches can determine the level of learning outcomes for Thai students at a good level. Therefore, the selection of learning approaches was very important for students and teachers to be aware of the influences on the educational achievement in each context. The study also provided two regression equations for each group that can be used to improve their learning outcomes.
Chapter 5
Discussion

The findings shed important light on the student learning approaches in the two contexts that is being discussed in this chapter. The research implications and research limitation would be presented at the end of the section. It can be noticed that study aimed to explore the comparative levels and relationships between learning approaches and learning outcomes and also the comparative predictability of the learning outcomes perceived by students in order to provide more compressive information on what types of learning approaches the students use and how they were comparatively effective to obtain better learning outcomes in the two contexts that can be useful for the teachers and education reformists to be aware of the learning output. The study concerned the two group samples of students enrolling undergraduate program in English Major in a university in Cambodia and Thailand. Methodologically, the RASI questionnaire was used to demonstrate the levels of learning approaches (deep, strategic, surface) and CEQ framework was used to identify the learning outcomes (skills development, GPA, course satisfaction,) in both groups. The data analysis was examined through statistical tools such as descriptive statistic, bivariate correlation, and multiple regressions in the SPSS program. From the findings, the two groups yielded different levels of learning approaches but gained the same learning outcomes. It also demonstrated the comparative differences of relationships between the variables. As expected, the null hypotheses for the three main research questions were rejected in the two studied groups; therefore, the learning approaches were used to predict the learning outcomes, which also showed different statistical results being discussed in the following sections.

5.1 Different Approaches to Learning Produce Similar Outcomes
Based on the finding, the Cambodian and Thai groups have comparatively different levels of learning approaches. By comparing the two means, the result from the independent t-test showed C group gained higher mean score of using deep approach than T group due to some possible reasons. In the comparative study of Vann (2016), who investigated the comparative relationship between learning environment and learning approaches among 39 undergraduate students from Cambodia and 21
students from Thailand, showed that learning environment was the main factor stimulating the deep approaches followed by good teaching and clear learning goals for Cambodian students. The learning environment included the interesting courses, helpful administrator, supporting technology, interactive peer learning and close contact with active researchers at the university where the students found inspiring to learning. Moreover, the study also found that Thai students perceived good teaching the most important factor, on the other hand, encouraging the embrace of deep approach followed by learning environment and clear learning objectives. The good teaching methods referred to giving feedback on students’ work, having precise learning goals and providing effective curriculum that linked to deep approach learning. Therefore, it can be included that learning environment played the most important role in encouraging the deep approach learning among Cambodian students.

Heng (2013) also revealed that learning attitude of Cambodian students toward learning environment and relationship with teachers has a positive influence on their learning outcomes. Also, some other researcher including Chumcharoensuk (2013) who undertook the comparative analysis on learning motivation between Cambodian and Thai first-year students by investigating the motivational factors influenced on achieving higher score. The result demonstrated that Cambodian students scored higher in intrinsic-integrative motivation to learn English language compared to Thai students including the self-effort in learning and desire to study with positive thinking about language learning. The intrinsic motivation was also categorized in deep approach in which students became actively interested in the course contents and aimed to understand the meanings of the materials they learned (Ramsden & Entwistle, 1983). This can be a possible explanation that self-motivation and positive learning environment factors contributed higher level of using deep approach to learning among the C group.

The finding also highlighted the same high level of using strategic approach in the two groups, showing no significant difference between the two means score according to the independent t-test result (see Table 6). It can be concluded that both Cambodian and Thai students worked hard to achieve good grades and intention to maximize the opportunity for academic excellence at the same level. Biggs (1979) mentioned the strategic approach was generally associated the orientation toward achieving highest
possible grades which students used in responding to requirement of context or assessment task. Therefore, the content, context and demand of certain learning task appeared to be correlated with a student’s choice of approach. A positive perception of learning environment (i.e. good teaching) was to improve deep and strategic approach to studying whereas negative perception (i.e. inappropriate workload) was to promote surface approach of learning. This result was in line with the study of Kitjaroonchai and Kitjaroonchai (2012) who found the instrumental motivation (i.e. employment) has significantly correlated with students learning strategy in Thailand. The importance of the English language requirement in career opportunities and labor market in Thailand was one of the main sources of motivation to study. Similarly, Thomas (2015) also wrote that learning English as a foreign language in Cambodia was greatly encouraged by the job market and international communication skills requirement in responding to the foreign development aids to the country, private business investment and current economic development. Therefore, in order to be qualified and competitive for the job market, the students must place great attention to excel in academic performance and work strategically to achieve higher grades where English language proficiency as a plus to their qualification.

The study also found that students from both geographical locations applied the surface approach to learning at different levels in which Cambodian students had higher score of utilizing surface approach to learning. However, both groups were shown in medium level of the learning involved in memory-based learning, feel fear of failure and cope with the course requirement without understanding its meaning. Entwistle, (2005) stated that the students who used surface approach tended to be motivated by the external factor and they generally aimed at passing the course requirements. In this study, the independent t-test result showed the difference of means score between the two groups which C group utilized relatively higher surface approach to learning for some possible reasons. Lizzio et al. (2002) mentioned that inappropriate assessment and heavy workload associated with surface approach where the students were inspired. The two factors could be the reason to explain why C group has higher level of using surface approach as the students could spend more time on the workload and study to merely pass the course, giving less time to understand the materials and use analytical thinking. According to Birenbaum and Feldman (1998), the students who adopted surface approach tended to prefer
multiple-choice test when students who utilized deep approach preferred open-ended questions and analytical questions. Therefore, it could be concluded that the selection of student learning approaches were greatly influenced by the nature of assessment criteria, nature of the examination, and the amount of workload they were given. Alex (2007) conducted a study on interrelationships between learning attitudes and learning outcomes using 915 students in a secondary school in Hong Kong as a sample. The result also revealed that surface approach was correlated with perceived workload and lower English ability, which the students have to cope with. Um (2013) investigated relationship between learning anxiety and reading texts among 232 undergraduates majoring in English in Cambodia. The result showed difficulty of linguistic features was the main factor demotivated students from learning followed by learning environment, personal traits, physical looks of texts, time constraint and relationship with teachers. Chumcharoensuk (2013) who studied a comparative investigation on factors affecting motivation of Cambodian and Thai students to learn English as a major at undergraduate level, found that the extrinsic-instrumentally factors such as language necessity for career goals, living standard improvement, accessibility to technology and future goals motivated the students to learn the language. Entwistle (1981) also stated that the academic assessment and teaching methods influenced on student learning approaches both directly and indirectly. The individual motivation and commitment to the subject area were fostered by the experience of teaching and freedom in learning. The intrinsic motivation was fundamentally inspiring the deep approach to learning while the inadequate previous knowledge of the topic and anxiety created by intensive teaching or over-demanding course requirement pushed the students toward using surface approach. Thus, it could be possible for the current study to conclude that the assessment system, inappropriate workload and external sources of motivational factors were adhering surface approach amongst Cambodian and Thai students.

To summarize the levels of learning approaches, the study found that both Cambodian and Thai students were in overall prone to using deep and strategic approach at high level rather than the surface approach to learning at medium level. This meant that both groups have moved beyond merely memorizing contents of textbooks in the classroom, but they have studied to understand the meanings of course materials and intrinsically motivated to learn the language. Tran (2013) conducted a qualitative
study of learning approaches used by students from the Confucian cultural heritage using 10 samples from Asian countries. The study concluded that Asian students did not adopt the rote learning styles and the claim of passive Asian learners was overgeneralized. It was consistent with the current study that Cambodian and Thai students were more deep and strategic approach learners. It was a similar finding with Biggs (1996) who suggested that the researchers redefine the terms passive learning styles and Asian way of learning between quietness and passiveness. However, if the Asian students were found to be passive, it was more related teaching methods, assessment requirements, learning habit and language barrier rather than cultural factors. The students hold cultural factors on appropriateness of behavior or reactions in classroom environment did not translate into learning passiveness. Kember (2000) mentioned that a certain educational system shaped the learning approaches perceived by the students such as workload, curriculum, assessment, teaching and learning environment where time was given for learning transition and guidance to handle the difference and justification. By having high score in both deep and strategic approaches, the current study concluded that both Cambodian and Thai student benefited from positive learning environment, good teaching methods, clear objectives of the program, individual motivation, and other supporting factors that correspondently improved their learning process and academic outcomes.

Although the students from both groups were reported to have different levels of using learning approaches, they have achieved the learning outcomes at the same levels. In each component, the two groups had the same level of satisfaction and GPA score that indicated the students were satisfied with the course they were attending including the aspects of teaching and learning activities. Bliuc, Ellis, Goodyear and Hendres (2011) mentioned that the supportive learning environment have been linked to the high engagement in learning performance and independent learning that determined the academic success and students’ satisfaction. The feeling of belongingness and connectedness of the university climate were important to build students’ wellbeing including self-esteem, positive affect and satisfaction. Ramsden (1992) also stated that the level of students’ satisfaction demonstrated a reciprocal relationship that affected student learning approaches and perception of the learning environment. Moreover, on average both groups have attained moderate high score in GPA required by the courses. Biggs (2003) stated that students’ competition normally
leads to high achievement. However, it suits only a minority of the students while more students chose to avoid or work less under the competitive conditions. In this case, the GPA result was considered the quantitative learning outcome that indicated the academic achievement of the two groups who have similarly performed fairly high score in learning English program that may enable them to compete in the employment market. At the same time, the students from both groups were found to have developed their generic skills and competency from their undergraduate program (i.e. Teaching English as a Foreign Language) in which C group had gained higher level compared to the T group according to the result of Independent-Sample T-test. Ramsden (1991) and Wilson et al. (1997) remarked that having high score in generic skills development represented the transferable ability gained from the course relevant to employability and concept of life-long learning including problem-solving skills, analytical thinking, working as a team, communication, ability to plan their work and level of confidence in dealing with news situation. Lizzio et al. (2002) found that the students’ workload ‘appropriateness’ was associated with development of generic skill, level of academic achievement, and level of satisfaction. For instance, when the less workload was given to the students, the greater time and opportunities were presumably allowing them to use the analytic, solve problems, facilitate learning process and integrate related application of knowledge. On contrary, the high workload was found to negatively related to generic skills development but positively encouraged surface approach. Therefore, it can be concluded that the C group was given appropriate workload than the T group, allowing time and opportunities for Cambodian students to develop their skills competency. In short, regardless of the difference in each sub-component, the main variable of learning outcomes were reported to have the same level in which the students from both contexts have accomplished in the academic outcomes through the English curriculum.

To summarize this section, the findings indicated the two groups have embraced more deep and strategic approaches to learning but they attained the same level of learning outcomes in the aspects of high course satisfaction, generic skills development and medium GPA. Some other factors such as learning environment, good teaching methods, clear objectives, individual motivation, positive learning environment, assessment system, and appropriate workload played roles in contributing the levels of learning approaches and learning outcomes achieved by the students.
5.2 Correlation Between Surface Approach and Learning Outcomes

The current study highlighted contrasting findings between C and T groups in term of the relationship between surface approach and the learning outcomes. It can be noticed that this study classified the learning outcomes into two aspects: quantitative (i.e. GPA) and qualitative (i.e. course satisfaction, skills development).

Having found the negative connection between the model in C group; however, the study revealed that surface approach had a positive relationship with qualitative outcomes ($r=.46$, $p=.00$) in T group. From the literature, the characteristics of surface approach students were defined as intension to merely cope with course requirements by memorizing the tasks and finding the correct answers rather than engaging in critical analysis and relying on independent inquiry (Entwistle, 2005). Such the approach produced low learning outcome and was supposed to negatively associated with desirable academic achievements. However, what could be interesting in this study was there was a positive relationship between the variances, refuting the previous findings in the previous studies such as (Marton & Säljö, 1976; Entwistle & Ramsden, 1983; Drew & Watkins, 1998); Cano, 2005; Diseth, 2007). This indicated using surface approach can improve skills development and course satisfaction disregarded the GPA. In other word, the T group tended to believe that learning by memorizing the textbooks, reproducing the knowledge and working hard to fulfill course requirement could lead to skill competency development ($R=.52$) and individual satisfaction ($R=.38$).

This result was congruent with the study of (Drew & Watkins, 1998) who investigated the interrelationships of affective variables, learning approaches and academic achievement using samples of 162 male and female students from Hong Kong Chinese university who enrolled in first year full-time Nursing, Radiography, and Language and Communication courses. The result indicated that the academic achievement was directly influenced by both surface and deep approaches depending on the academic attribution and self-conception of the students. The study concluded that student personality affected the learning process either using surface or deep learning that subsequently influenced on their academic result. Nordin et al. (2013) investigated the relationship between learning approaches and academic achievement
using 255 samples among teacher trainees at Universiti Teknologi MARA in Malaysia, revealed that the academic achievement was explained by strategic approach together with unrelated memorizing and fear of failure (i.e. characterized in subscale of surface approach) by 10.3% of the learning outcomes. The influence of using surface approach to achieve the higher grades can be positive or negative depending on how the students apply it (Wilding & Andrews, 2006). Some students combined two approaches understanding ‘deep’ and memorizing ‘surface’ to improve their academic performance. Similarly, Tan (2005) stated that some students employed the combination of understanding and memorization as an alternative approach to learning. The memorizing strategy was divided into surface and deep. In order to achieve better grades, the students who stressed on assessment system and reproduction of knowledge tended to employ deep memorizing approach. Biggs (1990) stated that some learners from Asia might perceive ‘memorization’ as ‘deep memorization’ that lead to deep understanding of the learning materials. The positive relationship between qualitative learning outcomes and surface approach demonstrated cultural factor played crucial role in mediating the learning outcome; however, in adult learning literature, it was suggested that work and life experience played important part in dealing with the learning tasks. Entwistle and Entwistle (2003) found the production of knowledge was explained by the linkage between understanding and memorizing in term of committing to memory and rote learning details. The creation of knowledge objects and form of understanding were engaged with the recruiting aspects of revision process of learning. Therefore, they concluded that deep intention of learning could involve somehow with rote memorization when surface approach to learning at university level can engage in the understanding. Renshaw and Volet (1995) also found that the students from South East Asia used a certain type of systematic approach rather than rote learning in surface approach. The systematic strategy was related to the usage of methodological and rehearsal learning in order to understand the learning materials. In pursuing high level of learning goals, the Asian students perceived rehearsal strategies used repetition and various form of teachers, mentorship and peer support very important in learning. Biggs (2003) found that students’ selection of using surface approach was crucially related to assessment and inappropriate workload. However, the current result was opposed to the finding of Lizzio et al. (2002) who believed surface approach was positively correlated with the quantitative learning outcome (GPA) and negatively associated with skills
development, which indicated the reversed direction of relationship for T group in this finding. They mentioned that the learning assessment has an impact on surface approach to learning and then affected learning outcomes as expected by the curriculum. Therefore, it might be possible to conclude that the positive relationship between surface and qualitative conception of learning outcomes in T group was more likely related to the objectives of the program, assessment system, experience of individuals’ selection of learning approaches in a certain culture of learning. It could be possible that the learning objectives of the university in the T group tended to focus on qualitative goals rather than the quantitative outcome where the teaching and learning activities were designed to increase students’ satisfaction and aimed to develop skills competency such as problem solving ability, effective teamwork, professional communication in English language, and future employment rather than the focus on increasing quantitative outcome (i.e. GPA).

For the C group, on contrary, the study found a negative relationship between surface approach and learning outcomes. This result supported the theoretical model suggested by (Entwistle & Ramsden, 1983); Drew & Watkins, 1998; Cano, 2005; Diseth, 2007) who found that surface approach students achieved lower academic results for their study. This result was consistent with previous research by Hasnora et al. (2013) reported the surface approach had inversely correlation with learning outcomes. The more students use surface approach, the lower score they gain. Richardson (2003) also found that the students who used surface approach obtained lower score in the exam, which was affected by the inappropriate assessment criteria given in the course. The students who rated the course as being of higher quality have gained better score, which was predominantly explained by the positive feedback from the teachers. The academic attainment was positively related with student perception of academic quality and the utilization of strategic approach but negatively associated with their adoption of surface approach. Therefore, this can be concluded that the learning outcomes achieved by C group were significantly related to deep and strategic approaches rather than the surface approach. The C group has seen the importance of understanding materials, improving skills competency and academic achievement motivated by the learning assessment and individual motivation.
5.3 Influence of Deep and Strategic Approaches on Learning Outcomes

The study highlighted significant relationship of deep and strategic approaches with learning outcomes (i.e. quantitative, qualitative) in the two groups. The finding suggested the differences in comparative degrees of predictor models in the two cases.

Firstly, the result presented the similarity of the finding. The current study found that both C and T employed both deep and strategic approaches at high level in order to earn highest academic achievement meanwhile trying to understand the in-depth meanings of the learning materials through English as medium instruction.

The finding also suggested that the learning outcomes from C group were significantly correlated with deep approach (r=.58) and respectively strategic approach (r=.47) that confirmed the established hypothesis (H1C) and also supported the theoretical models in the literature. From the coefficients correlation result, the strongest predictor of learning outcomes for C group was deep approach that explained the learning outcomes by 36% holding the f(3,93)=17.4, p<.05 indicated a reliable level of predictability. Moreover, the learning outcomes for T group were also significantly associated with strategic approach (r=.66) and deep approach (r=.65) that accepted the hypothesis (H2C) as expected to have a positive influence between the variables. Based on the ANOVA result, the predictor variables of deep and strategic approaches can explain the learning outcomes by 47% in T group holding the value of f(2,86)=38.8, p<.05 which the strongest predictor was strategic and deep approaches. This result fully supported the theoretical framework in this study.

The findings were congruent with the previous studies (Biggs, 1987; Drew & Watkins, 1998; Prosser & Trigwell, 1999; Watkins, 2001; Cano, 2005; Diseth, 2007) who found that the deep and strategic approaches have influenced the result of academic accomplishment. The students who embraced such approaches have significantly increased their learning performance. The high utilization of deep and strategic approaches would generally result in better learning outcomes whereas the encouragement of using surface approach would yield the poor academic performance (Entwistle, 1998). Moving beyond memorizing strategy and being passive in the classes, the students from C and T groups tended to maximize their learning
performance by paying close attention understanding the meanings of the course materials, analyzing the problems, working to meet requirements of the assessment and evaluating the effectiveness of their learning process. They also focused on good teaching methods and perceived learning environment in a positive manner that inspired both strategic and deep approaches to learning. This result was also consistent with Byrne et al. (2002) and Duff et al. (2004) who found that the students who utilized desirable approaches by scoring higher on strategic and deep approaches have accomplished high level of academic success. The significant determinants of the individual approaches were predominantly associated to presage factors including age, gender, personality and prior educational experience. However, this current study did not look at the student demography affect the learning approaches but rather specified on the experience of learning among year 3 and 4 students who have more exposure in dealing with language ability and using different approaches to learning.

Diseth, Pallesen, Brunborg and Larsen (2010) investigated roles of learning experience, efforts, motives and learning strategies on academic achievement using 442 samples of first semester undergraduate students of psychology subject. The resulted showed that deep and strategic approaches affected the academic performance (i.e. grades) when the surface approach had no correlation with the learning performance. The study suggested that the students’ effort in term of spending time on learning and using the strategic learning directly increased the academic achievement. Consistent to this finding, Cano (2005) and Watkins (2001) also concluded that both strategic and deep approaches have positive relationship with academic accomplishment along side with (Entwistle, Tait & McCune, 2000) and Çetin (2015) who confirmed that the students would demonstrate the high score in deep approach that eventually increased their learning outcomes. This was due to the subsequent years of the program in which the evaluation system was designed to reward the conceptual understanding and analytical thinking of the students. Similar to the study of (Trigwell & Prosser, 1991) who investigated the influence of learning context and learning approaches on academic outcomes using 143 samples of students enrolled in a first year in nursing communications program. The result indicated that the deep approach was positively associated with qualitative differences in sub-component of learning outcomes but negatively correlated with surface approach. The learning environment has determined what types of learning approaches selected by
the students that would consequently influence on the quality of learning outcomes. Bliuc et al. (2011) concluded that positive perceptions of the learning community had been linked to higher engagement in learning as well as higher levels of independent learning, which were good indicators of academic success and satisfaction. Ramsden (1992) suggested that the students who utilized deep approach to learning had higher level of overall course satisfaction that was significantly associated with learning environment and affective experience including the self-interest in the course and learning materials.

Secondly, the study presented the difference of findings between the two groups. The finding revealed the quantitative learning outcome (i.e. GPA) score had no relationship with deep approach \((r=.18)\) in C group when the GPA was found to have negative relationship with strategic approach \((r=.20)\) in T group. The two contexts showed contrasting results that when C group adopted deep approach to learning to achieve qualitative learning outcomes, the T group used strategic approach to attain the qualitative learning outcomes, regardless of GPA. What factors making the two groups different? Chen et al (2015) investigated the relationships between academic self-concept, learning strategies and academic achievement among 407 students from a national vocational college in Taiwan. The result found that deep approach did not have a significant relationship on academic achievement, which supported the current finding C group. The reasons were related to the inconsistent result of learning assessment and lack of academic achievement that reflected the exam score required by performance evaluation criteria. The students who utilized deep approach normally spend more time on exploring fundamental aspects of the subject to build the solid academic experience so they would not be typically conductive to gaining high exam score. However, the study added that both self-conception and strategic approach were used to explain the academic achievement \((r=.66)\) where the students managed their learning time effectively in responding to the subjects and evaluation forms. This finding was consistent with (Trigwell & Prosser, 1991; Byrne et al., 2004) who found no significant relationship between quantitative score of academic outcome and deep approach to learning. The argument pointed out the problem of evaluation system, which rarely rewarded the students who used deep approach to learning and some assessment procedures were aimed to merely test the knowledge sufficient for the use of surface approach. Diseth et al. (2010) also discussed that it was essential to
discourage surface approach rather than encourage deep approach if the intention was on improving learning performance. In order to improve the learning performance, Biggs (1979) added that the encouragement of strategic approach should be imposed for the students to maximize their learning process and gain higher learning outcomes. However, the current finding did not fully support this; for instance, there was no relationship between strategic approach and GPA score in T group, indicated that strategic approach was not aimed by the students to gain high score in this context. This study was also in line with (Dasari, 2009) who conducted a longitudinal study observing level of learning approaches with 80 undergraduate students enrolled in occupational therapy program in Hong Kong University. The study revealed that the academic grades have no relationship with deep, strategic and surface approaches, suggested that the university grades were not a true indicator of quality of learning outcomes but the teaching styles could have positive relationship with the GPA score. Therefore, the good teaching should be encouraged in order to maximize the student learning performance and better learning outcomes.

In short, the finding suggested the significant coefficients correlation between the main variables in the two groups but indicated the differences of relationships in sub-components in comparison. To the similar extent, the result supported the theories, giving the significant relationship between approaches to learning (i.e. deep, strategic) and learning outcomes in the two contexts. However, there were significant different results of the relationships between sub-components of the models. The levels of prediction power showed for T group was higher than C group. In order gain high level of learning outcomes, C group adopted only deep approach to learning whereas the T group utilized both strategic and deep approaches.
Chapter 6

Conclusion

The study has aimed to provide some information and understanding of how the undergraduates learn and achieve their academic outcomes in the contexts of Cambodia and Thailand by comparing the aspects of English curriculum in the sea of educational changes in higher education landscape, massification and globalization e.g. Cambodia prepared 216,000 students and Thailand admitted 1.8 million students for the university. As mentioned earlier, the university enrollment in the two contexts has explosively increased in double size of student population who started to learn the skills, acquire knowledge and improving critical of their disciplinary through English program. The remarkable growth in amount has impacted on the quality of higher education, recruiting process, assessment system, teaching and learning approaches that have made a significant change for the education reform in policies and budget provision e.g. the policy reform of student-centered approach enforced in Thailand in 1999 and Cambodia in 2002 to enhance the quality of teaching and learning at all educational levels. Because English language plays important role in the emerging ASEAN post-integration, labor market competition and academic cooperation e.g. research activities and exchange program for both countries, the expansion of English curriculum for international and national program has been focused with aims to provide better quality of learning and creating human resource for the socio-economic development. While the goals of higher education institutions of both countries were to compete for the better quality of education and prepare more qualified graduates for the labor market in the region, Thailand has also supported Cambodian higher education through a number of bilateral cooperation such as providing technical supports, scholarship schemes, and training educational experts. Within the framework of competition, academic collaboration has given mutual understanding and benefit. Giving some evidences in this study, it was necessary for the two governments to be able to identify the challenges and outcomes experienced by the undergraduate students through English curriculum as one of the aspects in the massification, competitions, reformed policies and cooperation programs between the two countries.
The objectives of the study are to examine the comparative levels and degrees of the students’ learning approaches and outcomes followed by the investigation of comparative relationship between learning approaches and academic outcomes at the two selected universities. To answer the research question how were the relationships between learning approaches and learning outcome differed in the two contexts? To what extent can the learning approaches predict the learning outcomes in the two groups? The 186 samples of undergraduate students from Cambodia (n=97) and Thailand (n=89) were used to investigate the levels, relationship and prediction power in order to answer the questions. The method of collecting data was the self-rating online survey disseminating to the students via the in-charge teachers. Two types of questionnaire RASI and CEQ were used to examine the explanatory and response variables. Based on quantitative study, the instrument used for data analysis was the software program SPSS performing descriptive data, correlation test, and multiple linear regression. This research employed Pearson product-moment formula to response to the established hypotheses and research questions.

The study yielded the similarities and differences of the two groups. Despite of both groups having different levels of utilizing learning approaches, they have similar levels of learning outcomes. The study also found significant relationships between the models in each group, but the degrees of the correlation were comparatively different. Moreover, the strength of predictive power influenced on the learning outcomes was also reportedly different.

Cambodian and Thai students were prone to using deep and strategic approaches at high level rather than surface approach to learning. The students have moved beyond memorizing the textbooks in the classroom by having studied to understand the meaning of the course materials. They were motivated to construct their knowledge through using English as medium instruction in the classroom based on the level of course satisfaction. The students on average were reported to have moderate high score of GPA and they ranked the course satisfaction at high level, implying that the courses were effective. It was concluded that earning environment was positive that allowed the students to develop generic skills competency and language ability at a fairly good level. The study also highlighted some significant differences in results that refuted the theoretical model. Since there was no relationship found between
GPA score with deep approach in C group and respectively the GPA has no correlation with strategic approach in T group; therefore, it was suggested that when the students from both groups wish to gain high quantitative outcome (i.e. GPA score), the Cambodian students should be inspired to use strategic approach and the Thai students should be encouraged to use deep approach as the variables were strongly correlated in this case. However, aiming to achieve both quantitative and qualitative learning outcomes, the students from the two groups should be motivated to use both deep and strategic approaches while discouraging surface approach to learning so that they can acquire analytical skills, knowledge and understanding required by the national and regional employment.

The study revealed that the students' selection of learning approaches was found positively correlated with the learning outcomes both quantitatively and qualitatively. For instance, the deep and strategic approaches had positive relationship with learning outcomes in both groups that supported the established hypotheses and theoretical framework suggested by (Marton & Säljö, 1976; Entwistle & Ramsden, 1983; Biggs, 1987; Drew & Watkins, 1998; Cano, 2005; Diseth, 2007) who studied the relationship between student learning approaches and learning outcomes of the university students. The strongest predictor of deep approach explained the learning achievement among Cambodian students by 34% while the learning outcomes 47% for Thai students were predicted by strategic and deep approaches. This has given evidences that the more Cambodian use deep approach, the better learning outcomes they would have whereas the Thai students could achieve higher learning outcomes if they used both deep and strategic approaches to learning. Moreover, the study highlighted the degrees of relationship between the models, indicated that T group has higher coefficients correlation than C group that students and teachers in both contexts should consider. The individual and contextual aspects could make different results on learning performance including assessment system, teaching and learning environment that could predominate the learning approaches and academic outcomes.

6.1 Implications for Theory and Practice

This study has contributed to the research field of international and comparative education in providing evidences for learning and instruction that played role in
raising fundamental issues of individual differences in behavior and learning development from one culture to another. Based on the constructivist framework, understanding the nature of student learning process and knowledge constructs in relation with teaching and learning environment was important in this study. The interaction with social environment, language acquisition and problem solving were believed to correlate with learning experience and selection of learning approaches (Biggs, 1993). Regardless of presage, the process—product model was used in this study to check the learning system based on individual students who learn through the awareness of the world addressed by both internal and external factors to achieve the desired outcomes (Prosser & Trigwell, 1999). The comparative meta-analysis of correlation between learning approaches, academic achievement, and self-conception built on theory of (Marton & Säljö, 1976; Entwistle & Ramsden, 1983; Biggs, 1990) originated in Western perspectives was studied in South East Asian contexts that somehow yielded different results. Watkins and Aalts (2014) argued that most theories of learning thought to be appropriate and applicable in different culture should require comparison so that the result can provide basis for developing theoretical framework, enhancing educational program and improving the quality of learning outcomes.

The present study has also contributed to the comparative research on levels, relationships and predictors of learning outcomes by investigating the affects between the learning approaches and academic outcomes. The well-known modeling of learning theory including deep, strategic and surface approaches was chosen in this study to understand the learning outcomes among university students. The findings of the current study can be taken into account for the educational practice that provide more evidence and draw attention on how individual learn, what types of learning approaches should be more appropriate and how learning outcomes are expected to be. For instance, the study suggested the students should be inspired to adopt strategic and deep approach meanwhile discouraging the surface approach to learning in order to have better academic achievements for both geographical contexts in Cambodia and Thailand (Bray, Adamson & Mason, 2007). However, the current study found significant results that can be used as suggestions for the theory development in the future:
1. The study found significant relationship between surface approach and qualitative aspect of learning outcomes, which refuted the theory of learning, suggested by (Marton & Säljö, 1976; Entwistle & Ramsden, 1983). Therefore, the model can be investigated further in the contexts of South East Asia that might yield different results based on individual preference, learning environment and cultural influence on learning process and outcomes.

It was important to recognize the different needs of individual learning, positive learning environment, learning approaches and students’ behavior in order to fulfill students’ desire and achieve the educational goals. Therefore, the English curriculum in both contexts should determine the appropriate learning approaches and individual preference that can stimulate the attitude for the better learning outcomes. Trigwell and Prosser (1991) suggested that teachers and educational actors should give adequate and helpful feedback, provide clear learning objectives, and offer appropriate assessment that can expect the students to demonstrate the relatedness and relevance of the program through creating opportunities for interaction, intension to make the lectures interesting and allowing personal spaces for the students to decide what and how they learn to achieve their academic goals.

6.2 Recommendations for Future Studies
The various conceptualization and factors predominated the learning approaches used by the students in higher education that should be further investigated in the future research. It was crucial to incorporate the six models of teaching and learning theory suggested by Ramsden (1991) and Wilson et. al, (1997) by including the presage factors relevant to learning process and outcomes. For example, both internal motivation and external related factors that affect the learning process should be directed in further investigation:

1. How South East Asian students learn and achieve their academic outcomes has not been broadly studied; therefore, selecting other countries in the regions to compare would be recommended.
2. It is even more interesting to compare cross-cultural investigations of learning approaches and learning outcomes between South East Asian and Western students.

3. It could be interesting to investigate what are the sources of motivational factors influencing on learning approaches and learning outcomes in two contexts of Asian students.

4. Since individual demography such gender, age and year of experience in learning play roles in students’ selection of learning approaches and affecting learning outcomes, it should be interesting to examine the direct and indirect impact in two cross-cultural contexts.

5. The next study should examine the influence of learning approaches on learning outcomes by comparing the students from Science and Social Science disciplinary.

The next research methodology should be adding a mixed-method design employing both quantitative and qualitative design to understand more in-depth of the learning phenomena. The different perceptions from actors such as teachers and educational reformers should also involve in the next study in order to triangulate more information and understanding from various angles of educational environment.

In a nutshell, the overall result demonstrated that the students from both groups have performed fairly well in their academic program by having adopted deep and strategic approaches. Both groups have achieved moderate high score in GPA and high level of satisfaction towards their program. Most importantly, the students have been reported to develop their generic skills that were extremely important and practical for their future career goals. The Bachelor program provided at the two universities seemed to be relatively effective in transferring and constructing knowledge via English language as medium instruction. However, it should be an implication that the two universities encourage their students to use more deep and strategic approaches while demotivating the use of surface, memorizing skills and reproduction of knowledge so that the students would have more chance to be analytical, critical, and independent learners in the era of competitive and knowledge-based society today.
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Appendix

Appendix 1: Recommendation Letter for Data Collection

Recommendation Letter for Data Collection

Dear ………

With reference to the above matter, I am writing to certify that Sovichea Vann who is a registered student of Master’s Programme in International and Comparative Education, Stockholm University is conducting a research entitled “A Comparative Study of Relationship Between Learning Approaches and Academic Outcomes of Undergraduate Students Enrolled in Bachelor of English: Two Case Universities in Cambodia and Thailand” under my supervision. In this regards, he needs data collection from the students in your university, which is a paramount to the completion of his research. On that note, I humbly plead for your consent on his behalf for administering his questionnaires on your campus. Enclosed with his online survey link is a set of questionnaire he wants to administer: https://docs.google.com/forms/d/1txU9dhavjQG386QSrhIBy1P9UCTky6uin2tTNUsa jF0/viewform?c=0&w=1

Your cooperation on this on this scholarly engagement will be sincerely acknowledged and highly appreciated. You may also ask to read his research thesis after the completion. Should you have any further questions about him, please contact me via E-mail: meeri.hellsten@edu.su.se

Best regards,

Prof. Meeri Hellsten

Institute of International Education

Stockholm University, Sweden
Appendix 2: Confidentiality Agreement

Confidentiality Agreement

This research adheres to the Swedish Government requirement ethical conduct published in https://publikationer.vr.se/produkt/good-research-practice/. Mr Sovichea Vann an enrolled master student at International and Comparative Education at Stockholm University, is conducting a study on learning approaches and outcomes among students in Thailand and Cambodia. The study is titled: (A Comparative Study of Relationship Between Learning Approaches and Academic Outcomes of Undergraduate Students Enrolled in Bachelor of English: Two Case Universities in Cambodia and Thailand). If you agree to participate, the research will collect your opinions and will interpret learning approaches and academic achievement such as GPA or academic scores. The participants’ identity and name of institution will be kept strictly confidential and will not be revealed to a third party or in any publications that may follow, including Mr Vann’s master thesis. Your responses will be securely anonymised and coded. After the master thesis is completed, the data will be destroyed. Your participation is entirely voluntary and you may discontinue the survey at any time, without consequences. However, your responses will be highly appreciated and valuable to the comparative study on learning activities in Cambodian and Thai contexts of higher education. Should you wish to read the research paper, you may contact Mr Vann via E-mail: sovichea.vann@gmail.com. By clicking the box in the online survey below, you agree to participate in the study according to the above terms and conditions.
Appendix 3: Questionnaire of RASI and CEQ

This survey is a part of Master's Programme in International and Comparative Education at Stockholm University, Sweden. This would take about 15 minutes to complete and this is a voluntary participation. Please check the consent form below. Please try NOT to use (3) Unsure very often unless you really have to. You are asked to indicate your perception on self-study approaches: (1) Strongly Disagree, (2) Somewhat Disagree, (3) Unsure, (4) Somewhat Agree and (5) Strongly Agree on courses/programs you are currently taking.

Thank you so much for your time and great participation. Please click on submit below to complete your responses. Have a nice time!

**RASI Questionnaire**

<table>
<thead>
<tr>
<th>Approaches to Learning Questionnaire</th>
<th>Level of Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I manage to find conditions for studying which allow me to get on with my work easily</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2. When working on an assignment, I'm keeping in mind how best to impress the marker or teacher</td>
<td></td>
</tr>
<tr>
<td>3. Often I find myself wondering whether the work I am doing here is really worthwhile</td>
<td></td>
</tr>
<tr>
<td>4. I usually set out to understand for myself the meaning of what I have to learn</td>
<td></td>
</tr>
<tr>
<td>5. I organize my study time carefully to make the best use of it</td>
<td></td>
</tr>
<tr>
<td>6. I find I have to concentrate on just memorizing a good deal of what I have to learn</td>
<td></td>
</tr>
<tr>
<td>7. I go over the work I've done carefully to check the reasoning and that it makes sense</td>
<td></td>
</tr>
<tr>
<td>8. Often I feel I'm drowning in the sheer amount</td>
<td></td>
</tr>
</tbody>
</table>
9. I look at the evidence carefully and try to reach my own conclusion about what I’m studying

10. It’s important for me to feel that I’m doing as well as I really can on the courses here

11. I try to relate ideas I come across to those in other topics or other courses whenever possible

12. I tend to read very little beyond what is actually required to pass

13. Regularly I find myself thinking about ideas from lectures when I’m doing other things

14. I think I’m quite systematic and organized when it comes to revising for exams

15. I look carefully at teachers’ comments on course work to see how to get higher marks next time

16. There’s not much of the work here that I find interesting or relevant

17. When I read an article or book, I try to find out for myself exactly what the author means

18. I’m pretty good at getting down to work whenever I need to

19. Much of what I’m studying makes little sense: it’s like unrelated bits and pieces

20. I think about what I want to get out of this course to keep my studying well focused

21. When I’m working on a new topic, I try to see in my own mind how all the ideas fit together

22. I often worry about whether I’ll ever be able to cope with the work properly

23. Often I find myself questioning things I hear in lectures or read in books

24. I feel that I’m getting on well, and this helps
<table>
<thead>
<tr>
<th>Number</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>25.</td>
<td>I concentrate on learning just those bits of information I have to know to pass</td>
</tr>
<tr>
<td>26.</td>
<td>I find that studying academic topics can be quite exciting at times</td>
</tr>
<tr>
<td>27.</td>
<td>I'm good at following up some of the reading suggested by lecturers or tutors</td>
</tr>
<tr>
<td>28.</td>
<td>I keep in mind who is going to mark an assignment and what they're likely to be looking for</td>
</tr>
<tr>
<td>29.</td>
<td>When I look back, I sometimes wonder why I ever decided to come here</td>
</tr>
<tr>
<td>30.</td>
<td>When I am reading, I stop from time to time to reflect on what I am trying to learn from it</td>
</tr>
<tr>
<td>31.</td>
<td>I work steadily through the term or semester, rather than leave it all until the last minute</td>
</tr>
<tr>
<td>32.</td>
<td>I'm not really sure what's important in lectures so I try to get down all I can</td>
</tr>
<tr>
<td>33.</td>
<td>Ideas in course books or articles often set me off on long chains of thought of my own</td>
</tr>
<tr>
<td>34.</td>
<td>Before starting work on an assignment or exam question, I think first how best to tackle it</td>
</tr>
<tr>
<td>35.</td>
<td>I often seem to panic if I get behind with my work.</td>
</tr>
<tr>
<td>36.</td>
<td>When I read, I examine the details carefully to see how they fit in with what’s being said</td>
</tr>
<tr>
<td>37.</td>
<td>I put a lot of effort into studying because I'm determined to do well</td>
</tr>
<tr>
<td>38.</td>
<td>I gear my studying closely to just what seems to be required for assignments and exams</td>
</tr>
<tr>
<td>39.</td>
<td>Some of the ideas I come across on the course I find really gripping</td>
</tr>
<tr>
<td>40.</td>
<td>I usually plan out my week's work in advance,</td>
</tr>
</tbody>
</table>
either on paper or in my head

41. I keep an eye open for what lecturers seem to think is important and concentrate on that

42. I’m not really interested in this course, but I have to take it for other reasons

43. Before tackling a problem or assignment, I first try to work out what lies behind it

44. I generally make good use of my time during the day

45. I often have trouble in making sense of the things I have to remember

46. I like to play around with ideas of my own even if they don't get me very far

47. When I finish a piece of work, I check it through to see if it really meets the requirements

48. Often I lie awake worrying about work I think I won't be able to do

49. It's important for me to be able to follow the argument, or to see the reason behind things

50. I don't find it at all difficult to motivate myself

51. I like to be told precisely what to do in essays or other assignments

52. I sometimes get 'hooked' on academic topics and feel I would like to keep on studying them.
CEQ Questionnaire

<table>
<thead>
<tr>
<th>Course Experience Questionnaire</th>
<th>Level of Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>53. The course has helped me develop my ability to work as a team member</td>
<td></td>
</tr>
<tr>
<td>54. The course has sharpened my analytical skills</td>
<td></td>
</tr>
<tr>
<td>55. As a result of this course, I feel confident about solving unfamiliar problems</td>
<td></td>
</tr>
<tr>
<td>56. The course has developed my problem-solving skills</td>
<td></td>
</tr>
<tr>
<td>57. The course has improved my skills in written communication</td>
<td></td>
</tr>
<tr>
<td>58. My course has helped me to develop the ability to plan my work</td>
<td></td>
</tr>
<tr>
<td>59. What was your overall score or GPA from the last semester or last year? (e.g. your GPA: 1.00-4.00; Score: 1-100 or Grades: A B C D E F)</td>
<td>Short Answer</td>
</tr>
<tr>
<td>60. In overall, I am satisfied with my undergraduate the program at this university</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 4: Grading System (GPA)

Grading System of the University in Thailand

Grading System of the University in Cambodia

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credit</th>
<th>Score</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE201: Core English</td>
<td>6</td>
<td>82</td>
<td>3.50 (B+)</td>
</tr>
<tr>
<td>WS202: Writing Skills</td>
<td>3</td>
<td>81</td>
<td>3.50 (B+)</td>
</tr>
<tr>
<td>LS201: Literature Studies</td>
<td>3</td>
<td>79</td>
<td>3.00 (B)</td>
</tr>
<tr>
<td>GS202: Global Studies</td>
<td>3</td>
<td>82</td>
<td>3.50 (B+)</td>
</tr>
</tbody>
</table>

Grade Point Average: 3.50

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credit</th>
<th>Score</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE202: Core English</td>
<td>6</td>
<td>84</td>
<td>3.50 (B+)</td>
</tr>
<tr>
<td>WS202: Writing Skills</td>
<td>3</td>
<td>78</td>
<td>3.00 (B)</td>
</tr>
<tr>
<td>LS202: Literature Studies</td>
<td>3</td>
<td>88</td>
<td>4.00 (A)</td>
</tr>
<tr>
<td>GS202: Global Studies</td>
<td>3</td>
<td>87</td>
<td>4.00 (A)</td>
</tr>
</tbody>
</table>

Grade Point Average: 3.50

Class grades are based on a 10.00 scale. Grade point average is computed on a 4.0 scale. Letter grades are as noted:

A(4.00) : 85% - 100% = Excellent, B+(3.50) : 80% - 84% = Very good, B(3.00) : 70% - 79% = Good, C+(2.50) : 65% - 69% = Fairly Good,
C(2.00) : 50% - 64% = Fair, D(1.50) : 45% - 49% = Poor, F(1.00) : 40% - 44% = Very Poor, F(0.00) < 40% = Fail

Phnom Penh, 10/11/2014
University Registrar

Phnom Penh, 10/11/2014
Dean, Rector