A STUDY OF ENGLISH PREPARATION NEEDS FOR THAI
UNDERGRADUATE STUDENTS IN THE FACULTY OF ARCHITECTURE FOR
THE INCOMING ASEAN ECONOMIC COMMUNITY

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การศึกษาการเตรียมความพร้อมด้านภาษาอังกฤษสำหรับนิสิตคณะสถาปัตยกรรมศาสตร์เพื่อการเข้าสู่ประชาคมเศรษฐกิจอาเซียน

นางสาวเสริมศิริ พรหมมีชัย

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เสริมศิริ พรหมมีชัย : การศึกษาการเตรียมความพร้อมด้านภาษาอังกฤษสำหรับนิสิตคณะ
สถาปัตยกรรมศาสตร์เพื่อการเข้าสู่ประชาคมเศรษฐกิจอาเซียน (A STUDY OF
ENGLISH PREPARATION NEEDS FOR THAI UNDERGRADUATE
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INCOMING ASEAN ECONOMIC COMMUNITY) อ.ที่ปรึกษาวิทยานิพนธ์
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งานวิจัยนี้มีจุดประสงค์เพื่อศึกษาความต้องการด้านการเตรียมความพร้อมภาษาอังกฤษ
สำหรับนิสิตคณะสถาปัตยกรรมศาสตร์เพื่อรองรับประชาคมเศรษฐกิจอาเซียน และสำรวจความ
คิดเห็นของนิสิต อาจารย์จากคณะสถาปัตยกรรมศาสตร์และสถาปนิกหรือผู้ประกอบการที่เกี่ยวข้อง
กับสายงานด้านสถาปัตยกรรมศาสตร์ในเรื่องการเตรียมความพร้อมภาษาอังกฤษเพื่อรองรับ
ประชาคมเศรษฐกิจอาเซียน และวิชาภาษาอังกฤษที่จัดการเรียนการสอนในคณะสถาปัตยกรรม
ศาสตร์ว่าสามารถตอบสนองต่อความต้องการของนิสิตหรือไม่

งานวิจัยนี้เก็บข้อมูลจากการตอบแบบสอบถามและการสัมภาษณ์ซึ่งจัดเก็บข้อมูลในภาค
เรียนที่ 2 ปีการศึกษา 2556 โดยการเก็บข้อมูลจากกลุ่มตัวอย่าง 3 กลุ่ม ประกอบด้วยนิสิตคณะ
สถาปัตยกรรมศาสตร์จำนวน 300 คน อาจารย์จากคณะสถาปัตยกรรมศาสตร์ 10 ท่าน และ
สถาปนิกหรือผู้ประกอบการที่เกี่ยวข้องกับสายงานด้านสถาปัตยกรรมศาสตร์ 5 ท่าน การเก็บข้อมูล
ด้วยวิธีการดังกล่าวนั้นทำให้ได้ข้อมูลเชิงลึกในด้านความต้องการการเตรียมความพร้อม
ภาษาอังกฤษสำหรับนิสิตคณะสถาปัตยกรรมศาสตร์เพื่อรองรับประชาคมเศรษฐกิจอาเซียน การ
วิเคราะห์ข้อมูลประกอบด้วยการวิเคราะห์ข้อมูลเชิงปริมาณซึ่งใช้ค่าเฉลี่ยและส่วนเบี่ยงเบน
มาตรฐาน ส่วนการวิเคราะห์ข้อมูลเชิงคุณภาพใช้ในการวิเคราะห์เนื้อหา

ผลการวิจัยพบว่านิสิต อาจารย์และสถาปนิกเห็นถึงความสำคัญของการขยาย
ตลาดแรงงานในอาเซียน และนิสิตคณะสถาปัตยกรรมศาสตร์จำเป็นต้องพัฒนาศักยภาพด้าน
ภาษาอังกฤษเพิ่มขึ้นเพื่อให้เป็นที่ต้องการของตลาดแรงงาน นอกจากนี้กลุ่มตัวอย่างทั้งสามกลุ่มยังมี
ความคิดเห็นว่าการเรียนการสอนภาษาอังกฤษควรเน้นการบูรณาการทักษะภาษาทั้ง 4 ด้านเข้า
ด้วยกัน เนื้อหาภาษาอังกฤษที่สอนสามารถนำไปใช้ได้จริงซึ่งอาจจะเป็นวิชาที่เกี่ยวกับภาษาอังกฤษ
เพื่อวัตถุประสงค์เฉพาะ และควรมีการฝึกฝนทักษะภาษาในห้องเรียนให้มากขึ้น

สาขาวิชา ภาษาอังกฤษเป็นภาษานานาชาติ	ลายมือชื่อนิสิต ....
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SERMSIRI PROMMEECHAI: A STUDY OF ENGLISH PREPARATION NEEDS FOR THAI UNDERGRADUATE STUDENTS IN THE FACULTY OF ARCHITECTURE FOR THE INCOMING ASEAN ECONOMIC COMMUNITY. ADVISOR: RUEDEERATH CHUSANACHOTI, Ph.D., 159 pp.

This study has the objective to investigate the needs of English preparation for undergraduate students in the Faculty of Architecture in response to the ASEAN Economic Community (AEC) across three groups of samples, namely undergraduate students, instructors in the Faculty of Architecture, and stakeholders in the field of architecture. Moreover, it also explores the opinions of these samples regarding the English preparation for the AEC and English courses that are currently provided by the Faculty of Architecture.

Data were collected by means of questionnaires and interviews from 300 undergraduate architecture students, ten instructors, and five stakeholders in architectural field. The interview session was used to collect more in-depth information regarding the needs of English preparation in response to the AEC, the English courses being offered by the Faculty of Architecture, and English language skills that would meet the expectations for the AEC.

The study findings have revealed that the participants have realized the expansion of labor market in ASEAN and undergraduate students need to improve their English language proficiency in order to be needed in the job market. The participants also perceived the English language courses offered by the Faculty of Architecture should be put on the integrated skills, language content that is practical for using in area of study which could be English for Specific Purposes (ESP), and a lot of practice in classroom.

Field of Study: English as an   Student's Signature ....

                International Language   Advisor's Signature ....

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CHAPTER I

INTRODUCTION

1.1   Introduction

English is considered as the "international language" for various domains of communication such as in the world of business, diplomacy, science, innovative technology, academic conferences, and world organizations. English language skills are therefore very important in a world dominated by globalization. English is also beneficial for increasing regional integration, cooperation, and competition at both domestic and international levels. It is the language medium through which people access global knowledge. Kachru and Nelson (2001) stated that English is the most extensively used as the language taught in educational institutions, for getting access to any kinds of information, and for worldwide communication. For non-English speakers, learning English is important, not only for understanding cultures, but also for reaping the benefits of international technology and commerce. As a result, many developing countries, including Thailand encourage the study and use of English in effective ways.

In the Thai context, English is important, not only for communication and education, but now also for achieving the goals of the ASEAN Community. The adoption of the ASEAN Economic Community or AEC in 2015 will transform the Southeast Asian region, with free mobilization of merchandises, services, speculation, skilled labor, and capital. The value and importance of English as the "de facto" working language of ASEAN will become apparent. English language will influence all aspects of economic activities among the member countries. Individuals,

industries, and educational institutions must therefore prepare for these challenges in terms of English language skills and knowledge of the AEC.

1.2   Background and statement of the problem

The Association of Southeast Asian Nations or ASEAN was founded under the "ASEAN Declaration" in 1967 for regional cooperation in political, economic, and social development among the Southeast Asian countries. ASEAN consists of ten member countries, namely the Republic of Singapore, the Kingdom of Thailand, the Republic of Indonesia, Malaysia, the Republic of The Philippines, the Socialist Republic of Vietnam, Brunei Darussalam, the Kingdom of Cambodia, the Lao People's Democratic Republic, and the Union of Myanmar. Since the foundation, ASEAN participating countries have continued their economic strength by means of the ASEAN Preferential Trading Arrangement (PTA) and the ASEAN Free Trade Area (AFTA) (Saraithong & Chancharoenchai, 2012).

The ASEAN Economic Community or AEC is now moving toward a deeper liberalization level between member countries. The main objectives of the AEC are: 1) to remove a trade barrier within the organization in the form of a single trade area and production base, and 2) to build a fair economic integration within a region in order to join the international economy (*ASEAN Economic Community Blueprint*, 2008). The results of liberalization under the AEC comprise the following five key components: the mobilization of merchandises, services, speculation, capital, and skilled labor (*ASEAN Economic Community Blueprint*, 2008). When the AEC comes into effect, economic activities between regional member countries, including Thailand will increase and expand. This will generate increased job opportunities for

skilled professionals, both in Thailand and in regional markets. The mobility of people within the area will increase with the work permit for ASEAN skilled labors and professionals. This has resulted in the establishment of the Mutual Recognition Arrangements (MRAs) for professional services including doctors, dentists, nurses, engineers, architects, surveyors, accountants, and tourism services. Eight professions have been liberalized by ASEAN nations under domestic regulations. Skilled labor with top qualifications and proficiency in the English language will be required to fill the AEC job market.

The language used in the region will be a fundamental mechanism and play an important role in the AEC. When the ASEAN Community comes into effect, the combined population will be over 600 million people and the language used for economic activities is the topic to be taken consideration. The ASEAN Summit in November 2007 which introduced the ASEAN Charter, declared English as the official working language in ASEAN. The ASEAN Charter Article 34 states, "the working language of ASEAN shall be English" (2009, p. 29). English will therefore be the "lingua franca" and determine the success of the member countries as a medium of economic cooperation. Therefore, it is critical that all member countries educate their populations with the English skills necessary for this new environment.

With the emergence of the AEC in 2015, there will be high competition for skilled workers and professionals in the local workforce. Thai skilled workers must be equipped with the necessary working and language skills, especially English to compete with other ASEAN workers and increase their job opportunities. Rooth and Saarela (2007) noted that besides the necessary working skills, a high proficiency level in English was a highly sought after employee attribute. English is an important

language used as the medium of communication in labor market in this era of internationalization (Kapur & Chakraborty, 2008).

Thais, however, have a lower proficiency in English compared to natives of Singapore, Malaysia, and The Philippines. A report detailing the Test of English as a Foreign Language (TOEFL) scores from January to December 2010 by the Educational Testing Services (ETS) showed that Singapore was ranked 3rd worldwide in English Proficiency, and 1st in Asia with 98 out of an average score of 100 (ETS, 2010). From 163 countries, The Philippines and Malaysia were ranked 35th, with Thailand 116th. In addition, a recent report by Education First (EF, 2011) on the levels of English language proficiency among the youth in 44 countries, indicated that Thailand was categorized at "very low proficiency" and ranked 42nd. Thailand is therefore lagging behind other member countries in ASEAN such as Singapore, Malaysia, and The Philippines. Although Thailand has launched the campaign "English Speaking Year 2012" in order to encourage Thai people to speak English for the emergence of the AEC, not enough attention has been given to improving English language skills throughout the education system, especially in higher education. In the new AEC, bilingual and multilingual individuals will have a great advantage in finding good job positions. Thais, seeking work in other ASEAN countries, might struggle to gain employment because of their lower proficiency in English. In contrast, incoming workers from other member countries with higher English proficiency are likely to have better chances for employment.

The emergence of the AEC in 2015 is therefore a major concern for Thai people in the eight occupations under the MRAs; high English proficiency will be required to compete with the region. Architectural Services, one of the MRA

occupations, is highly competitive in the region, because the number of architects in each country is low at only 0.35 percent of the population (Wongboonsin & Wongboonsin, 2011). Consequently, architects are highly sought after in the ASEAN job market. Many companies are not fully foreign owned or managed, but architectural students will still inevitably need to learn English to communicate with their colleagues, clients, subcontractors, suppliers, and other related people in the field after graduation. Instructors and course developers must therefore design effective English courses to help the architectural students fulfill their professional requirements and meet the needs of the stakeholders.

Hence, the researcher investigated the needs and the opinions of the undergraduate students in the Faculty of Architecture, instructors, and stakeholders regarding English language preparation for the AEC, and the language skills required by Thai architects to meet the needs of stakeholders, and offer the guideline to develop suitable English courses in the future.

1.3   Research questions

The purpose of the study was to conduct an assessment to reveal the needs and opinions of the undergraduate students and instructors in the Faculty of Architecture, and the stakeholders in the architectural field. The followings questions were addressed:

1.   What are the needs of English language preparation for undergraduate students in the Faculty of Architecture in response to the AEC?

The related sub-research questions were:

1.1 In the view of undergraduate students, what are the needs for English language preparation in response to the AEC?

1.2 In the view of instructors, what are the needs of English language preparation for the undergraduate students in response to the AEC?

1.3 In the view of stakeholders, what are the needs of English language preparation for architects in response to the AEC?

2. What are their opinions regarding English language preparation for undergraduate students in the Faculty of Architecture in response to the AEC?

The related sub-research questions were:

2.1 What are the undergraduate students' opinions regarding English language preparation in response to the AEC?

2.2 What are the instructors' opinions regarding English language preparation in response to the AEC?

2.3 What are the stakeholders' opinions regarding English language preparation in response to the AEC?

1.4 Research objectives

The objectives of this research were:

1. To investigate the needs of English language preparation for undergraduate students in the Faculty of Architecture in response to the AEC, and in particular;

1.1   to investigate the undergraduate students' needs of English language preparation in response to the AEC,

1.2   to investigate the instructors' needs of English language preparation for undergraduate students in response to the AEC, and

1.3   to investigate the stakeholders' needs of English language preparation for the architects in response to the AEC.

2.   To investigate the opinions of undergraduate students in the Faculty of Architecture, instructors, and stakeholders regarding English language preparation in response to the AEC, especially;

2.1   to investigate the undergraduate students' opinions regarding English language preparation in response to the AEC,

2.2   to investigate the instructors' opinions regarding English language preparation in response to the AEC, and

2.3   to investigate the stakeholders' opinions regarding English language preparation in response to the AEC.

1.5   Scope of the study

1.   The population for this study consisted of:

1.1   undergraduate students in the Faculty of Architecture, Chulalongkorn University,

1.2   instructors in the Faculty of Architecture, Chulalongkorn University, and

1.3   stakeholders in the field of architecture.

2.   The study was undertaken to determine the English language preparation needs of the undergraduate students in this faculty, and the language components that will meet the needs of stakeholders for the AEC across the three population groups.

3.   The variable was the English language preparation needs for the AEC which comprised the students' needs of English language, and the participants' opinions on the English language courses offered by the Faculty of Architecture.

1.6   Definition of terms

The operational terms were defined as follows:

English preparation needs are the necessary requirements of English language knowledge and skills provided in formal education for the undergraduate students to meet their specific career goals. This English language knowledge includes language structures, rhetorical categories, language functions, and language skills.

Undergraduate students refer to Thai undergraduate students currently studying in the Faculty of Architecture, Chulalongkorn University in academic year 2013. The students were both male and female who came from different majors, namely architecture, industrial design, landscape architecture, interior design, urban and regional planning, and housing development. They comprised second to fifth year students who had already passed the two fundamental English language courses

'Experiential English I and II,' which focused on integrated language skills. Their English proficiency level was in an average to upper-intermediate.

Instructors refer to the instructors currently teaching in the Faculty of Architecture, Chulalongkorn University.

Stakeholders are the people who are the architects, suppliers, subcontractors, or other related people in the field of architecture.

Needs refers to what students would like to learn from the language courses to best serve their professional objectives (Robinson, 1991). Needs can be defined as the desire for language development and the lack of language learning of the undergraduate students in the Faculty of Architecture.

Needs assessment or needs analysis is a systematic process to determine the language skills that the students require, and determines which groups of students demand specific language skills for performing particular roles such as secretary, tour guide, and accounting manager (Richards, 2001). Here, a needs assessment is the investigation of the perceived needs and opinions in English language in response to the AEC. The instrumentations to determine the needs and opinions consisted of questionnaires and semi-structured interview.

The ASEAN Economic Community (AEC) refers to the economic integration which is planned to create a single trade area within a competitive and dynamic economic region. This cooperation has resulted in the liberalization of merchandises, services, speculation, capital, and skilled labors (*ASEAN Economic Community Blueprint*, 2008). The economic activity between regional member countries will increase job opportunities for skilled professionals under the Mutual Recognition Arrangements (MRAs). These professional services include doctors,

dentists, nurses, engineers, architects, surveyors, accountants, and tourism services. Architects, one of these eight professions, who have top qualifications and proficiency in English language, will be advantageous for job employment in ASEAN job market.

1.7   Significance of the study

The findings from this study will benefit future undergraduate students, instructors, and institutions. Students will have useful courses that serve them with the English language skills necessary for their future careers. The research results will be beneficial for instructors to develop a new course syllabus and update the teaching methods in a future program for the undergraduate students in the Faculty of Architecture. The results will also assist instructors with the selection of appropriate teaching methods and course materials. Finally, the institutions will produce competent graduate students that can compete with others in the ASEAN market. The university will be able to carry out a broad review of the English language courses being offered for the benefit of future students.

CHAPTER II

LITURATURE REVIEW

This chapter reviews the literature related to the ASEAN Economic Community (AEC), the importance of the English language in the ASEAN, content-based instruction (CBI), English for specific purposes (ESP), and needs assessment.

2.1   The ASEAN Economic Community

2.1.1   The background of ASEAN

The Association of Southeast Asian Nations or ASEAN was founded on August 8, 1967 as a result of the ASEAN, or Bangkok Declaration. This organization firstly had five participating countries, namely Singapore, Indonesia, Thailand Malaysia, and The Philippines. The ASEAN area now extends throughout Southeast Asia. ASEAN has the purpose to accelerate economic strength and social and cultural improvement among the participating countries in the region. The organization also aims to promote peaceful region, steadiness of collaboration on the mutual interest in economic, social, and cultural activities. Moreover, it has the objective to maintain the benefits of cooperation with other international organizations.

2.1.2   The ASEAN Community

The implementation of ASEAN economic cooperation has been started since its foundation. The next goal was to establish the ASEAN Community consisting of three pillars; ASEAN Security Community (ASC), ASEAN Economic Community (AEC), and ASEAN Socio-Cultural Community (ASCC). Each pillar has its purposes as follows:

The ASEAN Security Community was set up to establish peace in the region by solving the problems within the area peacefully and strongly. ASEAN stability and political groups 1) employ ASEAN agreement frameworks and mechanisms to handle controversy in the area, and to cope with new threats such as terrorism, drug trafficking, human trafficking, international criminal gangs, and the prevention of Weapons of Mass Destruction; 2) initiate new ways to promote stability and assign new collaboration patterns, including measures to prevent possible controversy and enhance peace in the region after the controversy has been settled; and 3) promote maritime collaboration through increased member freedom in international policy and military collaboration without the building of any military alliance.

The ASEAN Economic Community was set up to stabilize the area and encourage competition. It was established to 1) freely mobilize goods, services, investment, and economic cost, and to reduce poverty and discrimination problems prior to the year 2015; 2) promote ASEAN as a single trade area and manufacturing center by establishing innovative measures and systems, in accordance with the settled economic measures; 3) assist ASEAN new members to narrow the economic gap and boost collaboration between members; and 4) promote collaboration in financial policy, macro economy, currency and capital markets, insurance, tax, basic infrastructure development, transportation, legal collaboration development, agriculture, energy consumption, tourism, and human resources by promoting education and labor development (*ASEAN Economic Community Blueprint*, 2008).

The ASEAN Socio-Cultural Community has the objectives to improve life quality, promote the use of sustainable natural resources, and promote ASEAN cultural uniqueness through the ASEAN Socio-Cultural Community action plan. This

covers agreements in collaboration for drug prevention, rural development, poverty elimination, environmental education, culture, feminism, public health, AIDS, and youth. These are key topics and areas of the community with focus on four aspects: 1) building a caring and helpful community; 2) solving social problems caused by economic union; 3) improving environment consumption while sustaining and nurturing it properly; and 4) promoting understanding at the grass root levels on historical and cultural studies, and providing access to news and knowledge.

2.1.3   The ASEAN Economic Community and blueprint

Intra-regional economic cooperation first became effective in 1976, and since then ASEAN countries have created further economic strength in the region. The mobilization of merchandises under the Common Effective Preferential Tariff (CEPT) has been promoted in 1992 (Sim, 2008). This trade bloc agreement supports local manufacturing in the area by eliminating tariffs and non-tariff barriers, which encourages foreign direct investment.

ASEAN also became more liberalized with the establishment of the ASEAN Economic Community (AEC) in January 2007 at the Cebu Summit. The AEC has the intention to remove a trade barrier within the organization in the form of a single trade area and manufacturing center. In addition, it aims to build a fair economic integration within a region in order to join the international economy. The scope of cooperation involves manpower development and capability, the accreditation of professional requirements, conferences on economic and financial scheme, trade finance, infrastructure connectivity, intercommunications, electronic purchases via e-ASEAN, industrial collaboration to enhance regional sourcing, and unity within the private sector (Charumanee, 2012).

In short, the blueprint has provided direction, with a clear purpose and timeline to establish the AEC by 2015, five years earlier than originally planned. The AEC will develop regional economic expansion and steadiness, and diminish the economic differences between member countries. It will turn ASEAN into a region with high mobilization of merchandises, services, speculation, capital, and skilled labor (ASEAN, 2009).

2.1.4 The AEC under Mutual Recognition Arrangements (MRAs)

When the AEC becomes fully integrated in 2015, there will be opportunity for the liberalization of skilled labor and ASEAN professionals. The Mutual Recognition Arrangements (MRAs) are a major instrument to accommodate the movement of ASEAN professionals and skilled labor. However, this does not guarantee job availability or market access. The Bali Concord II in 2003 agreed that MRAs for eligible professionals in eight occupations must be completed by 2008 to provide conditions for professional and skilled labor mobility within the region. Each member country will consider professionals' education background and experience, qualifications, work permit, language proficiency, and certification issued in the ASEAN area.

2.1.4.1 Mutual Recognition Arrangements

The ASEAN Secretariat (2011) supported that professional services accredited by the accordant authorization in one member country will be accepted by others. This will facilitate the mobility of professionals throughout the region.

Currently ASEAN Economic Ministers (AEM) have signed the ASEAN Framework Agreement on Services (AFAS), which includes eight packages of MRAs as follows:

- "MRA on Engineering Services, signed on 9 December 2005 in Kuala Lumpur, Malaysia;

- MRA on Nursing Services, signed on 8 December 2006 in Cebu, The Philippines;

- MRA on Architectural Services and Framework Arrangements on the MRA of Surveying Qualifications signed on 19 November 2007 in Singapore;

- MRA on Medical Practitioners, MRA on Dental Practitioners, and MRA Framework on Accountancy Services signed on 26 February 2009 in Cha-am, Thailand; and

- MRA on Tourism Professionals signed on 9 January 2009 in Hanoi, Vietnam."

(ASEAN Secretariat, 2011)

The MRA on Architectural Services, listing architects as a highly skilled profession will be liberalized across the region in 2015. This MRA will 1) promote the liberalization of architects; 2) encourage information transfer to support regulations on the criteria of architectural education, professional standards and requirements; 3) comply with the purposes of ASEAN co-operation based on an unbiased allocation of resources and the advantage from collaborative research; and 4) support and foster mutual recognition of architectural services, and set up the principle and responsibility for technological exchange within ASEAN countries (ASEAN, 2012).

The ASEAN MRA on Architectural Services outlines a framework for cooperation and the liberalization of architects in the region. It states that an architect

eligible for registration as an ASEAN Architect (AA) has first to complete a qualified or certified architectural program and must be registered with the ASEAN Architect Council (ACT). The architects must have at least ten years of field experience, and have held a professional license for five years. They must also have had at least two years responsibility in important architectural projects. Moreover, they are required to conform to the Continuing Professional Development (CPD) policy at an unexceptional level, and be certified by their home country, without record of severe infringement in the practice of architecture. Finally, they must agree to adhere to the professional guide code and principles (ASEAN, 2012).

According to the Center of International Trade Studies (2012), 50 percent of Thai architects realize that the new free labor market under MRA will allow them to work freely in ASEAN countries. The skill levels and expertise of Thai architects are highly regarded, compared with those from other countries, except Singapore. Therefore, Thai architects should not encounter any problems registering as an AA, and they can positively compete with architects from other ASEAN countries.

However, the main factor that hinders Thai architects is their lack of English proficiency. Those who have advanced levels of English language skills will gain the maximum advantage offered by the AEC. It is very crucial therefore that Thai architects attain English language skills to keep pace with the internationalization and increase their job opportunities. Educational institutions are very important in driving, preparing, and facilitating the students in this endeavor.

2.2   The importance of the English language in the ASEAN

English is now considered as an international language (Kirkpatrick, 2008) and offers a new perspective in today's globalized and internationalized world. The ASEAN area consists of 600 million people, with over 1,000 different local languages spoken within the region. English will therefore play a key role as a *lingua franca*, bringing together this rich cultural and linguistic diversity. The ASEAN Charter specifies English as the only one working and official language of the AEC. The concept of English as an International Language (EIL) in ASEAN does not deal with native-like competence, but focuses more on international and intercultural communication.

Since ASEAN has determined English as the working language, member countries have tried to promote the use of English and to improve English language learning. Cambodians speak English with their partners in ASEAN countries, instead of French (Prusher, 2001). Cambodian officials, representatives, and agents learn English as a result of the development of their English-speaking personnel policy (Clayton, 2007). In Indonesia, English has become the international language all over the country (Deusen-Scholl & Hornberger, 2008). However, the shortage of qualified and proficient English teachers and the problems of English language pedagogy (Yuwono & Harbon, 2010), have made Indonesians confront the important issue of English language education. English plays an important role in all ASEAN countries. The next section will briefly describe the background of English language learning in Thailand.

2.2.1   English language learning in Thailand

Thailand has never been colonized, unlike some other ASEAN countries, so Thailand does not have past experience of the English language (Kirkpatrick, 2010). Following Kachru's (1995) concept of the "three concentric circles of English," Thailand is categorized in an expanding circle country which uses English as a foreign language. English is also considered as the *lingua franca* in the Thai context (Baker, 2008; Foley, 2007; Kirkpatrick, 2010). English is taught as a compulsory subject in educational institution. Thai people however rarely use the English language on a daily basis. English is still regarded as a foreign language, used for educational purposes, careers, and communication with foreigners and people from ASEAN.

The prevalence of English language learning, and everyday usage is lower in Thailand than in most other ASEAN countries (Baker, 2012). Academic proficiency in English, shown by both teachers and students, is a subject to take consideration. At undergraduate student level, this failing was highlighted by Marukatat (2012). Thai EFL students lag behind their ASEAN counterparts in spoken English (Khamkhien, 2010). This would be because of teachers' different concepts of using Communicative Language Teaching (CLT) (Baker, 2008; Saengboon, 2004) . Solutions need to be urgently found to rectify this situation and raise Thai English language skills to the general ASEAN level.

Thailand needs to deal with high competitive situations which will result from the mobilization of labor among ASEAN members. The free mobility of skilled professionals will bring both advantages and disadvantages. English language skills will be critical communicative tools when working, and indicative of labor

productivity (Kim, 2003). The low English language proficiency of Thai students will therefore be an obstacle regarding future employment, both at national and international levels. Thailand needs to hasten students' English language proficiency to ensure their potential competence in the international job market.

2.2.2 The preparation of English language learning education in Thailand in response to the AEC

The government should concentrate on education Thai people with the awareness of being part of the ASEAN community, to better reap the benefits from the AEC. English language education in Thailand must be stepped up to achieve effective collaboration among member nations, institutions, and individuals. It is therefore necessary to examine how Thailand is preparing Thai people for the AEC.

At national level, the Office of Higher Education Commission (2008) created three strategic plans to prepare Thai people for the ASEAN Community as follows: 1) raise the English language capabilities of new graduates to international levels, 2) increase the quality of higher education in institutions to ASEAN standards, and 3) promote the merits and rewards to be gained from attending higher education. The Thai Government has also provided financial support to learning institutions to raise the quality of graduate English language and inter-cultural skills (Office of Higher Education Commission, 2008). Research opportunities will now become available through the ASEAN University Network (AUN), and the government is promoting these new trends (Wongboonsin & Wongboonsin, 2011). The Thai government regards the ASEAN Community and AEC participation as top priority.

The Ministry of Education recognizes the current lack of English language teaching, and is focusing efforts to rectify this at all education levels (Ministry of

Education, 2010). Students are urged to speak English and seek knowledge from English texts and websites on the internet. The Ministry of Education launched the "English speaking year 2012". This encouraged English usage in selected schools (Marukatat, 2012). Emphasis was placed on spoken English without undue concern about grammatical errors (The Government Public Relations Department, 2011). However, despite this and other promotional projects, English language usage and proficiency in Thailand remains low. Factors for this are possibly related to poorly qualified teaching staff, low student motivation, large classroom numbers with mixed student abilities, and few opportunities to practice the English language at home (Dhanasobhon, 2010; Yoshida, 2002). Radical changes therefore have to be made to the concept and methods of English language instruction, with the focus on students' weakness and needs requirements.

At institutional level, the changes which result from the AEC will affect the English language curriculum. The establishment of the AEC will increase the demand for English language education at all levels. ASEAN countries have a huge diversity of cultures and languages; therefore, the content of instruction should be focused both on the same and different linguistic features of the English language varieties within the ASEAN area (Kirkpatrick, 2008). The native-like model is not crucial, and mistakes should be allowed, because students need to learn how to communicate in English with people of linguistic diversities. Therefore, design for both the English language and the social contexts of ASEAN should be integrated into the English curriculum (Deerajviset, 2015).

Recently, Thai higher education institutions have responded to the changes from the AEC. The Language Institute of Thammasat University has provided

enhanced personnel development by setting up training courses and conferences for instructors at all levels of capability and experience, for them to become trainers or leaders in their communities (Noom-ura, 2013).

At the individual level, as the English language will be used as the official means of communication in ASEAN, English language proficiency is a crucial qualification for Thai students, especially university students because this will be indicative of their educational success and employment opportunities. It is therefore vital for students to improve their English language competency and be able to interact effectively in the region, both face to face and through e-communication. Research conducted by the Ministry of Education found that Thai people lack knowledge of the concept of the ASEAN Community (Ministry of Education, 2012). There must be a program of increasing awareness to prepare Thai undergraduate students regarding the importance of the ASEAN Community and the AEC. The English language competency of the students is extremely important.

There are many different ideas and suggestions proposed to improve Thai English language proficiency. Research by Pakir (2010) determined that among the requirements for English for specific purposes, teaching pedagogy, and material development, the English for specific purposes was the most important. With more freedom and the liberalization of skilled professionals, the AEC will become a single market economy. Maybe English for specific purposes could be formulated and promoted for study to enhance graduate job prospects within the AEC. The English language teaching technique has also to be changed to best accommodate good communication between non-English speakers. The small, but subtle variations within the English languages of the different ASEAN member nations will undoubtedly

cause communication problems, and individual identities and characteristics must be considered.

To further develop the communicative competence of students for professional purposes, and for communication in both a multilingual and multicultural context, Communicative Language Teaching (CLT) with the primary objective to enhance learners' communicative competence may be suitable for the needs of students. Littlewood (2007) affirmed that CLT helps learners to communicate in English effectively and improves their abilities to use English in real communicative situations. The next two sections focus on CLT approaches as Content-based instruction (CBI) and English for Specific Purposes (ESP).

2.3   Content-based instruction (CBI)

The interweaving of subject matter and language is one of language teaching approaches that are popular and accepted around the world. Richards and Rodgers (2001) recognized content-based instruction as one of the offspring of CLT approaches. Stryker and Leaver (1997) supported the benefits of CBI in the wider perspective. CBI prepares students to acquire language skills by employing the context of the subject matter. The language is learned within the context of a specified academic subject using a framework approach.

2.3.1   The theoretical framework of content-based instruction

Brinton (2003) stated that the principles of content-based instruction should: 1) lay the foundation of instruction on a subject matter rather than language criterion; 2) not separate skills; 3) actively engage students in all steps of the learning process; 4) select a content in accordance with students' lives, interests, and/or

academic objectives; 5) choose genuine texts and tasks; and 6) attract students' attention to language highlight. All these six principles will be briefly discussed.

In the CBI classroom, the teacher considers that the selection of content dictates the choice and continuity of language criteria. For example, in the sheltered content of gravitational forces, the focus might be on assisting students to comprehend and learn core academic vocabulary; natural phenomena, physical bodies, and proportional force. It is worth considering that CBI instructors should have clear content learning goals as well as language goals (Larsen-Freeman, 2000).

CBI is also laid the foundation on the language learning theory that language competence is the result from the integration of four language skills: listening, speaking, reading, and writing. This is similar to Nunan's view that using all four skills together can reflect the real situation, where the communication incorporates with multiple skills at the same time (Nunan, 2003).

To make the students actively involved in all phases of the learning process, they must not rely on the teachers to direct the learning, or to be the main source of knowledge. As Brinton (2003) pointed out, the main principle of CBI is that the learning process is the result from exposure to the instructor's input, peer's input and interaction.

The students' lives, interests, and academic goals are the critical factors for choosing the content, because they will then enjoy and participate in the lessons and subsequently become more stimulated. CBI principles believe that the effective language learning occurs when students use the target language to transfer their information of interest. (Larson-Freeman, 2000).

The concept of selecting authentic texts and tasks in CBI suggests that the texts and tasks should not be given or written for instructional objectives, but for reflecting real-life communicative purposes (Brinton, 2003). For instance, the teachers let the students read political cartoons to understand the political point of view expressed by the author's bias.

To draw overt attention to language features, CBI believes that only using authentic texts in the classroom, with additional input provided by the teachers and peers will not lead the students to successful language acquisition. The teachers should employ the tasks which raise students' awareness in order to attract their attention to specific language components in the authentic texts.

To summarize, according to the six principles, CBI suggests how to use content as a function of the form of the English language and the skills that students need to learn. With CBI, students gradually have English language acquisition and it enables students to engage in academic and social content. Richards (2006) advocated that CBI can be used as a course preparing students for the current trend of language learning, and as the guideline for the whole course. For example, when many of the undergraduate students on an EFL context need to take compulsory English courses in their first year, the mainstream or multiskilled course books chosen as the basis of the course should be organized to supply a framework in which language skills, lexicons, and grammatical structures can be developed simultaneously (Richards, 2006).

To further comprehend the essential features and implementation of CBI, three models are discussed below.

2.3.2   Types of content-based instruction

Brinton, Snow, and Wesche (1989; 2003) developed three types of CBI, theme-based language instruction, sheltered content instruction, and adjunct instruction.

Theme-based language instruction is teaching approach in which the course organization is arranged in specific themes or topics. The thematic content should provide rich input for the information taught which can be either language-based (with an emphasis on lexicon, pronunciation, and grammatical structure), or skill-based (with an emphasis on four language skills), so that students can acquire the language successfully (Brinton, 2003). **Sheltered content instruction** is an approach for teaching content rather than the target language. The language simplification is used for serving the level of students' language proficiency. The concentration on language acquisition through the subject matter and specific language forms enables students to be successful in language learning. **Adjunct instruction** refers to the course that students are studying the target language as well as the subject matter. This is typically found at high school, college, and university level. In the adjunct model, students are supposed to learn the content alongside the language features. As a result, students are assessed by subject matter competence and by language proficiency.

2.3.3   The benefits of content-based instruction

Several research studies provide positive evidence supporting the benefits of CBI in foreign or second language learning, and academic accomplishment for ESL/EFL students. Kasper (1997) studied the effect of CBI and the sequential academic performance of ESL students at Kingsborough Community College,

Brooklyn, New York. The results showed that students in the pilot group who employed topics related to their academic discipline, scored higher than students in the control group who used a variety of topics irrelevant to their specific academic subjects. Kasper investigated with these subjects again to follow up the subsequent effect of CBI. In all four semesters of this investigation, the results revealed that the pilot group got significantly higher scores in both reading and writing assessment tests with an average of 75 percent, while the control group only achieved 67 percent. This study indicated both the short- and long-term effectiveness of combining language teaching with content instruction.

Glenn (2005) provided more empirical data from a study examining the effect of English and academic English proficiency and content mastery of students in the 10th grade at a public school in New York City. The course was arranged through the sheltered content approach. The results demonstrated that the students' reading skill gave an average score of the post-reading at 65.87, compared to the average score of the pre-reading at 18.4.

CBI would be advantageous for students, including those at university level since it allows them to learn the subject matter and acquire a great deal of language, especially using integrated skills. CBI has also proved successful at the bilingual University of Ottawa, where the language medium of instruction is both English and French (D. Brinton, Snow, & Wesche, 1989). This can be compared to the situation in Thailand where the importance of English continues to grow with the arrival of the AEC. CBI can enhance the students' competence in the target language through the content knowledge (Dupuy, 2000).

When CBI has been exposed, its implementation would be beneficial for a wide range of educational contexts. It has been proved effective in bilingual education and in tertiary level for foreign language teaching and learning. CBI is therefore considered as one of the most typical foreign language pedagogies. The implementation of CBI is spreading throughout many countries where the population speaks many different languages, or where English is regarded as the official or foreign language. At present, apart from the purpose of being competence in the target language and content knowledge, CBI would be the way to prepare students for the era of internationalization and the complex of cultural aspects (Eurydice European Unit, 2006). This is relevant to the situation in Thailand, where the educational institutions and teachers have to prepare students for the incoming ASEAN Economic Community. With respect to this English preparation for AEC, CBI is likely to be the teaching approach that can best help students gradually attain English language proficiency, and enable them to get involved in complex academic content and social environments. CBI will help to promote English language proficiency and the language skills essential for different professions.

2.4   English for Specific Purposes (ESP)

Since this study is related to English language preparation for architecture students and English for architects is one kind of ESP, the researcher needs to review the concept of ESP to use it as a guideline for designing a course syllabus after the process of needs assessment has been completed.

2.4.1 Overview of English for Specific Purposes (ESP)

English for Specific Purposes (ESP) is a broad term referred to English teaching approach which aims to cater for a group of people with particular needs, whether for academic, professional, or personal objectives. The entire course is specially designed for a specific group of people or purpose, and the emphasis of content instruction varies in accordance with the field of specialty. Different scholars have provided the definition of ESP in many ways. Hutchinson and Waters (1987) defined ESP as language teaching approach in which the learners' study objectives are the determination of content and language instruction. They also suggested that ESP was not 1) the way of teaching English varieties, 2) a matter of teaching technical terms and grammatical structures used in any specific professions, or 3) different from other language teaching approaches (Hutchinson & Waters, 1987). According to their definition, the principle of ESP includes the learners, the target language, and the learning contexts.

Dudley-Evans and St. John (1998, pp. 4-5) formulated a comprehensive definition of ESP which included three absolute characteristics and four absolute variables. In terms of absolute characteristics, ESP 1) is designed to serve learners' needs, 2) utilize the essential technique and activities of the disciplines it works for, and 3) is focused on the language (grammatical structures, lexicon, and registers), skills, communication, and language types suitable for these activities. Variable characteristics suggest that ESP may 1) have connection with or be created for specific disciplines, 2) be utilized in particular teaching situations, a different methodology from that of 'General English', 3) be created for adult learners which

could be a university student or a professional in workplace, and 4) be generally created for intermediate or advanced students, but also used with beginners.

The definition of Dudley-Evans and St. John (1998) provides an effective definition for ESP, while making a distinction between ESP and general English language teaching. They elaborated that ESP courses do not need to be in relevant to the subject matter, but should always reflect the fundamental concepts and activities of the broad disciplines. Moreover, the central point of ESP derives from the use of needs analysis to determine the learners' future objectives and needs, and the ESP class is appropriate for students or adult learners with the same language objectives, either academic or occupational objectives (Dudley-Evans & St. John, 1998). More importantly, in their definition, they place emphasis on two features of ESP techniques, stating that ESP instructors should stress more on methodology that is served learners' area of specialty and career objective, and teaching styles used in ESP classrooms are different from that in general English classroom (Dudley-Evans & St. John, 1998: p. 4). That is to say specific ESP has its own technique. They also believed that language should be involved as a representing characteristic of ESP. The specified needs derived from needs analysis should be related to activities that students have to complete. These activities count on registers and specific type of languages used in students' specialty.

ESP is a teaching approach that concentrates on the specific linguistic knowledge and communication skills necessary for accomplishing specific purposes (Orr, 1998) within a specific discipline or profession. The subject matter content should direct language learning and the language studies should meet the specific learning needs of students for their field of study and work. According to many

scholars, there are two main branches of ESP which are English for Academic Purposes or EAP and English for Occupational Purposes or EOP (Dudley-Evans & St John, 1998; Hutchinson & Waters, 1987; Robinson, 1991). It is clear that the current ESP teaching approach has expanded in many countries in which they use English as a second or foreign language.

In summary, ESP is a branch of CLT and applied linguistics which has its own principles. Robinson (1991) regarded ESP as goal directed for study or work purposes, and based on needs analysis, end of course requirements, and initial needs which included learning needs. ESP is designed for adults rather than children, and is a necessity requirement in many countries. ESP may also be suitable as a response to the academic and professional demands of students in various fields in different countries of the world.

2.5   Need and needs assessment

2.5.1   Overview of need and needs Assessment

Since Communicative Language Teaching (CLT) was initiated, research into students' needs, beliefs, and attitudes towards learning the English language has continuously increased. The study of students' needs can guide curriculum developers and teachers, and compartmentalize these requisites by rank of importance and curricular decisions (Primo et al., 2010).

There are many definitions of needs and needs assessment in the literature. Needs according to Widdowson (1981, p. 2), may refer to the students' academic or job desire, that is, what they are capable to do at the end of their language course. Robinson (1991, p. 7) suggested that needs, apart from the students' academic or job

desire, may refer to what the students themselves would like to learn from the language course as professional objectives.

Mountford (1981, p. 27) explained needs as what the institution or society considers as essential or needed to be acquired from a course of language teaching. Needs are not static, curriculum designers or teachers should evaluate their curricula occasionally to determine whether they still meet the needs of the students.

All the above concepts of needs are derived by outsiders, teachers, society, and employers, not by the student insiders themselves. To identify both outsiders' and insiders' needs, conducting needs assessment is the best choice.

A needs assessment is a comprehensive project to examine individuals' needs derived from the gap between their current status and their desired status using specific procedures such as an analysis of statistics, case studies, and the focused groups (Southwest Comprehensive Center, 2008).

Richards (2001) opined that needs assessment in language teaching can be used for several purposes. It is useful for finding out what language skills the students require and determining which group of the students are most in need of training in specific language skills to perform a particular role, such as a university student, tour guide, secretary, or accounting manager. Moreover, needs assessment helps the curriculum designer to determine if a current program adequately serves the requirements of students so as to provide a change of direction for the programs, activities, and projects. It also enables the teachers to identify a gap between what students are capable of, and what they need to be able to do. Finally, it assists the teachers to collect information about a particular problem that the students are experiencing.

Needs assessment is essential for the practice of specific-purpose teaching (Hutchinson & Waters, 1987). It guides teachers to precisely draw what specific language students need to succeed in their courses (John, 1991). Besides, it is beneficial for teachers to assess and solve students' existing problems and to empower their strengths and competencies (Dudley-Evans & St John, 1998). Data obtained from needs assessments are the judgment for designing courses and allocating resources.

2.5.2 Steps in needs assessment

A "needs assessment" is a process used to pin down learners' needs, analyze their characters and purposes, and set priorities for future action. To conduct a needs assessment, different kinds of models must be followed step-by-step. Mckillip (1987) suggested five steps for conducting needs assessments.

The first step is to identify the audience and purposes for the analysis. For example, curriculum developers have concerns about the effectiveness of the English language curriculum, so they might commission a needs analysis to examine students' opinions concerning the content of the subject, materials, methods, assessment, and teachers.

The second step is to describe the target population. Needs assessment puts the emphasis on specific target groups in a system. The populations in an education setting would be students, teachers, parents, administrators, and the community at-large.

Needs identification is the third step. The researcher identifies the problems and then generates possible solutions.

The fourth step is the needs assessment. This is the evaluation of the identified needs which are the most important. Do any of the needs conflict with other needs?

The last step communicates the results. The researcher summarizes the findings and informs the audience identified in the first step.

There are several basic needs assessment techniques to investigate organizations and/or personal needs such as direct observation, survey questionnaires, interviews, focus groups, and document analysis.

The classroom observations and staff meetings can support information in terms of the operation of the organization accommodating the students' education. Surveys questionnaires are effective, easily done, and provide a ready-for-use data. Interviews are an efficient way to examine the concerns or problems that are not well understood or receive condemning information from stakeholders. Besides, they help to ensure the findings from questions or let interviewees to make further explanation on interesting topics. Focus groups are an excellent way to check perceptions of the groups and to create thought and offer solutions to the problems. When participants have interaction with others, concepts or resolutions often emerge. In terms of document analysis, a wide range of documents can be used for the needs assessment process. These documents may include curriculum or course description and instructional materials such as textbooks.

Needs assessment is a consecutive process and used in the instructional program. The researcher must therefore have a clear objective for collecting data and make sure that only information that will be employed is collected completely (Richards, 2001).

2.5.3   Related research studies

This section discusses related research studies on needs assessment conducted at tertiary level and compares previous research findings and possible implications with the results and discussions of this study.

To begin with the international studies, Basturkmen (1998) did a research study at the College of Petroleum Engineering, Kuwait University, using a questionnaire, an interview, and classroom observations. Most of the English course concentrated on reading and listening skills, with strong emphasis on the development of writing skills. She found that the students' perceptions and teachers' perceptions towards the importance of language skills were different. The students thought listening was more difficult than speaking, reading, and writing. On the contrary, the teachers perceived the students to have inadequate writing skills. Results from this study were used to revise the English language curriculum of the university.

Chan (2001) conducted research on identifying the students' needs of English language at Hong Kong Polytechnic University. The subjects included students, English teachers, and program coordinators. The instruments used were questionnaires and interviews. The questionnaire results showed that both the students and English teachers were concerned about improving speaking skills at conferences and seminars for academic and professional objectives. Interviews conducted with the students provided information about problems affecting English learning, such as lack of confidence when communicating in English, and weak vocabulary development. The teachers and program coordinator interviews revealed that the students encountered problems in English learning through fossilized learning habits, lack of opportunity to practice English outside the classroom, and mother tongue interference.

This study also indicated that students were able to state their opinion on various language skills and were conscious of the importance of sub-skills related to their academic goals, future careers, and social life. The researcher considered that the data helped to decide on the best teaching methods and how to increase the relevance of practical English courses for the program.

Aliakbari and Boghayeri (2014) conducted a needs analysis study on the ESP language learning needs of Iranian architecture students. Questionnaires were created to determine the participants' needs using the four English skills, and explored the opinions of their language demands, attitudes towards language instruction, and the teaching methods of the specialized English course. Regarding listening skills the undergraduates indicated most emphasis on "listening to conversations on general topics", while the graduates considered "listening to mass media" as most important. For speaking skills the undergraduates recognized "talking with lecturer, students, and customers" as their priority. The graduates selected "talking with professionals in real situations" as the most important. For reading comprehension ability, "reading technical texts on the internet" was recognized as most important by the undergraduates, while "reading articles in professional journals" was selected by the graduates. For writing skills undergraduates considered 'writing term papers' as their most important need, while the graduates chose "writing articles for journals." In summary, the participants recognized that reading comprehension was the most important skill, followed by writing, speaking, and listening. In addition to the perceived needs of English skills, the graduates revealed that they needed general study skills such as learning technical conversation, practicing how to use technical

words in real situations, and participating in English workshops. These general study skills should therefore be taught in architecture ESP courses.

In the Thai context, Kittidhaworn (2001) examined the English language learning needs of Thai undergraduate engineering students at Thai public university, using a self-assessment questionnaire to record students' needs in the four components, language structures, rhetorical categories, language functions, and language skills. Results showed that the students thought that the English language needs in all four areas were very important. The ranking order of the ten most frequently reported elements were mainly in reading and writing. Listening and speaking were also of concern, but of less importance.

Akaranithi (2007) carried out a study on the development of English in an architecture program for undergraduate students at Chulalongkorn University. This study employed a needs assessment within the Proactive Form of Evaluation. The researcher administered three-step needs assessment questionnaires. The first step dealt with the students' perceived needs of the English for architecture program before they took the course. Results showed that students preferred integrated skills, rather than separated skills which they found to be more practical. In terms of language skills, reading and writing were rated higher than the other two. In terms of preferred practice of teaching, students liked to practice their grammar. The second step determined the desired needs of the students regarding their exposure to introductory English on the architecture program. The results revealed that students still needed to study integrated skills, although they found these hard to apply. Writing and reading were still rated highly. Writing was selected as the most important skill, and grammar was the preferred teaching practice. The last step

identified the desired needs of the instructors who taught the English for architecture program. They thought that integrated skills were more practical for their students. They also found reading and writing important for the students in their study and their work. The instructors chose grammar as the preferred practice of teaching and independent study, with guidance as most necessary for their students. The findings from these three steps of the study indicated that both the instructors and students were in agreement that self-directed learning was an alternative way of teaching and learning in the Thai context, which would help improve learning efficiency.

Although these research studies were not related to English language learning preparation for architecture students in response to the AEC, they served a purpose for the researcher in several ways. For example, to compile the needs assessment questionnaire, some ideas were taken from previous studies and used as a base and guideline for discussing the theoretical framework concepts in needs assessment.

CHAPTER III

RESEARCH METHODOLOGY

This chapter outlines the overall design of research methodology and the procedures used in this study. The population and the sample are presented, followed by the development and validation of the research instruments. Finally, data collection and data analysis are discussed.

3.1 Research design

This survey research investigated the needs of English language preparation for undergraduate students in the Faculty of Architecture in response to the AEC across three samples groups, namely undergraduate students and instructors in the Faculty of Architecture, and stakeholders in the architectural field. The opinions of these three sample groups regarding English language preparation for the AEC in the Faculty of Architecture were examined.

Both quantitative and qualitative data were collected from the three sample groups, using two research tools, the English for Architecture Needs Analysis Questionnaire and the semi-structured interview.

3.2 Population and sample

3.2.1 Population

The population consisted of three groups: Thai undergraduate students (second to fifth year) in the Faculty of Architecture, Chulalongkorn University; instructors in

the Faculty of Architecture, Chulalongkorn University; and stakeholders in the field of architecture currently working in Thailand.

3.2.2 Sample

The sample comprised three groups of people as presented below:

Group I: This sample group included 300 undergraduate students from six departments (architecture, industrial design, landscape architecture, interior design, urban and regional planning, and housing development) in the Faculty of Architecture, Chulalongkorn University. They were second to fifth year students in academic year 2013 who had already taken the compulsory English language courses, namely Experiential English I and Experiential English II, and other English Courses required in the curriculum.

The sample size for undergraduate students was derived from Yamane's formula (Yamane, 1967)

$$n = \frac{N}{1 + Ne^2}$$

where n is the sample size

N is the size of the population, and

e is the error of 5 percentage points.

From Yamane's sample size formula, with 5% error and a confidence coefficient of 95%, the calculation result from a population of 1047 undergraduate students was 286. The researcher decided to increase the number of sample to 300 to account for possible attrition.

The 300 participants were selected by a simple random sampling method. Fifteen participants who willingly volunteered were chosen to participate in a semi-structured interview, to elicit in-depth information regarding their opinions of the English language courses currently offered by the Faculty of Architecture, including their English language learning needs in response to AEC.

Group II: Ten instructors currently teaching in the Faculty of Architecture, Chukalongkorn University were recruited using a convenience sampling method. All instructors had at least one year's experience in teaching architecture students, as they had to be familiar with the subject matter and skills needed in the architectural field. All ten instructors were asked to participate in a semi-structured interview regarding their opinions on aspects of the English language courses provided at the faculty.

Group III: Five stakeholders working in, or operating businesses related to the field of architecture, were chosen by a purposive sampling method. They were selected based on the criteria of currently working in the field of architecture and having at least one year's experience in this field. An architect generally takes one year to learn the work ethics and other skills, such as the English language used in the architectural field. Only architects who were willing to participate were recruited. From the five selected samples, three worked in the government sector and two for architectural companies. All five were asked to participate in a semi-structured interview to provide in-depth information in relation to the research questions.

3.3   Research instruments

Two data collection instruments were employed: the English for Architecture Needs Analysis Questionnaire and the semi-structured interview.

3.3.1 English for Architecture Needs Analysis Questionnaire

The English for Architecture Needs Analysis Questionnaire was designed to obtain quantitative data regarding the research objectives, to investigate the needs of English language preparation for undergraduate students in the Faculty of Architecture for the AEC, and to explore the opinions of the samples regarding English language preparation for the AEC. The questionnaire was adapted from the work of Kittidhaworn (2001) which surveyed the perceived needs of English as a Foreign Language (EFL) engineering students regarding the English language in four major areas: language structures, rhetorical categories, language functions, and language skills. The questionnaire was developed after extensive research of relevant literature including the AEC Blueprint and Architectural Services under the Mutual Recognition Arrangement (MRA). The questionnaire was originally written in Thai to prevent any misinterpretation of the English language. It was later translated into English for the purpose of this research report only.

The questionnaire was divided into four parts: 1) demographic information, 2) self-perception towards the AEC and its preparation, 3) the perceived needs of English language preparation of participants in response to the AEC, and 4) comments and suggestions. The first part of the questionnaire "demographic information" elicited data regarding the background information of participants such as gender, age, educational background, work experience, and their self-evaluation of English language proficiency. The second part "self-perception toward the AEC and its preparation" surveyed basic knowledge of the ASEAN Community, including the understanding of the AEC and its preparation. This consisted of ten items arranged in a four-point rating scale ("strongly agree," "agree," "disagree," and "strongly

disagree"). The third part "the perceived needs of English language preparation of participants in response to the AEC," investigated the perceived needs of English language learning in four major areas: language structures, rhetorical categories, language functions, and language skills. For language skills, there were sub-categories of listening, speaking, reading, and writing. This part of the questionnaire had 51 items organized in a four-point rating scale ("most," "a lot," "a little," and "least") to elicit the needs of English language preparation for the incoming AEC. The last part "comments and suggestions" consisted of one open-ended question that allowed the participants to express their comments, opinions, and suggestions regarding the expectation of English language courses prepared for undergraduate students. The construction of the questionnaire in a four-point Likert scale format avoided the 'neutral' preference of the participants and required them to make a choice.

The format of the three questionnaire sets was similar, but with minor differences in questions within each sample group. Three questionnaires were created as follows:

1. English for Architecture Needs Analysis Questionnaire: Undergraduate Students (Form A)

2. English for Architecture Needs Analysis Questionnaire: Instructors (Form B)

3. English for Architecture Needs Analysis Questionnaire: Stakeholders (Form C)

3.3.1.1 Validation of English for Architecture Needs Analysis

Questionnaire

The questionnaire was submitted to three experts in the fields of education, language assessment and evaluation, and English for specific purposes to ensure that the content was valid. The Index of Item-Objective Congruence (IOC) was used to determine the correlation between the questions and the research objectives, before the questionnaire was distributed to the participants in the pilot study. The evaluation form with marks for agreeable (+1), not sure (0), and disagreeable (-1) was sent to the experts for their assessment, either agreement or disagreement with the appropriateness of each item in the questionnaire and the semi-structured interview. If at least two experts were in agreement for each item, then that item was considered valid. The mean score therefore had to be equal or higher than 0.5. The result of the IOC calculation showed that the panel of three experts accepted all the questions, with the content validity score of 0.97.

The comments and suggestions from the experts were used as guidelines to revise and improve the questionnaire. All three experts suggested adding more information to some parts of the questions to improve the clarity, adjust the layout of the typing, and correct the typographic mistakes. Their suggestions for improvements to the questionnaire are described below.

For the student questionnaire, the information of age, and academic year, should be changed to a box to mark, as it was easy to calculate the range of the data. For the instructor and stakeholder questionnaire, this revision was not necessary.

For all three sets of the questionnaire, abbreviations should be written in the full term. For example, in item number four, "MRA" should be written in the full term as "Mutual Recognition Arrangement."

In the third part of the questionnaire, item number 4.6, "lectures and talks" should be added to "Listening to presentations, discussions, seminars, and conferences." "Writing descriptions about the location and design of the room, furniture, garden, floor plan, etc." should also be added to the questionnaire at section 4.4 "writing skill."

3.3.2   Semi-structured interview

The second instrument used in this study was the semi-structured interview. This allowed the researcher to probe further if any interesting data was offered by the participants. The purpose of the semi-structured was to gain in-depth information and opinion from the samples, to triangulate the results from the questionnaires. The semi-structured interview consisted of five open-ended questions for the students, and six open-ended questions for the instructors and stakeholders. All the questions were prepared regarding the needs of English language preparation in response to the AEC, the English language courses being offered by the Faculty of Architecture, and English language skills that would meet the expectations or requirements of the AEC.

3.3.2.1) Validation of the semi-structured interview

The semi-structured interview was validated for content by three experts in the field of education, language assessment and evaluation, and English for specific purposes. The evaluation form with marks for agreeable (+1), not sure (0), and disagreeable (-1) was submitted to the experts for their assessment of the appropriateness of each item. The IOC index was used to calculate the content

validity. The results of the IOC calculations showed that the panel of three experts accepted all the questions with a content validity score of 1.0. No improvements were therefore necessary for the interview questions.

3.3.3 Pilot study

After revising and improving the questionnaires and the semi-structure interview, a pilot study was conducted with a group of participants prior to use in the main study. Three approved sets of questionnaires were distributed to the three groups of subjects: 15 undergraduate students, 10 instructors, and 5 stakeholders at the beginning of January 2014 to check for reliability of the questionnaire. The researcher checked the internal consistency of the questionnaire using Cronbach's alpha. A result of 0.7 to 0.9 indicates an acceptable reliability coefficient. The values of reliability for the three sets of the questionnaire: undergraduate students, instructors, and stakeholders were 0.83, 0.89, and 0.93, respectively. Thus, the three sets of the questionnaire were determined as reliable for the collection of data in the main study.

The pilot test was conducted outside class hours to accommodate students from different departments with different schedules, and limit disruption to the teaching and learning processes. The participants in the pilot study did not participate in the main study.

3.4 Data collection procedure

After the completion of the pilot study, two data collection steps were followed.

Step 1) Questionnaire distribution: Three forms of the English for Architecture Needs Analysis Questionnaire were distributed to three groups of

subjects at the beginning of February 2014 at the Faculty of Architecture, Chulalongkorn University, and the stakeholders' offices in Bangkok. The researcher collected data from 300 undergraduate students, ten instructors, and five stakeholders. Three hundred questionnaires were distributed to undergraduate students in six different departments (architecture, industrial design, landscape architecture, interior design, urban and regional planning, and housing development), by a random sampling method. The researcher and the faculty staff informed students of the place and time for returning the completed questionnaires. There was a 100% return rate. Questionnaires were distributed to the ten instructors individually and all were returned. Five questionnaires were delivered to the five stakeholders at their offices and all were completed and returned.

Step 2) Interview: After collecting and analyzing the data from the questionnaires, the semi-structured interviews were conducted at the beginning of February 2013, with the three groups of participants to gain a measure of the breadth and depth of the information. A purposive sampling technique was employed to select interviewees who offered up interesting questionnaire information and was willing to participate. The participants were fifteen architecture students, all ten instructors, and all five stakeholders from the main study. The interviews were conducted in a relaxed manner in Thai to avoid misinterpretation and data loss in translation, and also to allow the subjects to provide information both freely and openly. The location where the interview was conducted depended on the convenience of the participants. The interviews of the undergraduate students and instructors were conducted individually at the Faculty of Architecture, Chulalongkorn University. The stakeholders were interview at their offices in Bangkok. The duration of each interview was 20 to 30

minutes. Conversations during the interviews were recorded using an electronic voice recorder, and later the main points were transcribed.

3.5   Data analysis

To answer the research questions, the data were quantitatively and qualitatively analyzed using different statistical methods suitable for each type of instrument.

To answer the research question 1. *What are the needs of English language preparation for undergraduate students in the Faculty of Architecture, in response to the ASEAN Economic Community (AEC)?* and its sub-research questions, the data from the questionnaire was subjected to analysis by SPSS. Percentage and frequency count were used to analyze the response in the "demographic information" part. Descriptive statistics of mean and standard deviation were used to determine the perception of participants towards the understanding of the AEC and its preparation, and to reveal the participants' perceived needs of English language components in response to the AEC.

To answer the research question 2. *What are their opinions regarding English language preparation for undergraduate students in the Faculty of Architecture, in response to the ASEAN Economic Community (AEC)?* and its sub-research questions, the data from the interviews was analyzed for content. The researcher studied the interview transcriptions and defined the units of analysis and categories using a coding procedure. This process reduced the content into categories consistent with the research questions and objectives. The counting frequency of existing words in the collected data was then used to determine the importance of the AEC, problems with

English language teaching and learning in the classroom, and the English skills that participants needed. Finally, the researcher interpreted the meaning of the collected data and reported the research findings.

Table 1 illustrates the summary of research instruments and data analysis in accordance with the research questions.

Table 1 Summary of research instruments and data analysis

Research Questions	Research Instruments	Data Analysis
RQ1: What are the needs of English language preparation for undergraduate students in the Faculty of Architecture in response to the ASEAN Economic Community (AEC)?		
RQ1.1: In the view of undergraduate students, what are the needs of English language preparation in response to the ASEAN Economic Community (AEC)?	Questionnaire Form A	Descriptive statistics
RQ1.2: In the view of instructors, what are the needs of English language preparation for the undergraduate students in response to the ASEAN Economic Community (AEC)?	Questionnaire Form B	Descriptive statistics
RQ1.3: In the view of stakeholders, what are the needs of English language preparation for the architects in response to the ASEAN Economic Community (AEC)?	Questionnaire Form C	Descriptive statistics
RQ2: What are their opinions regarding English language preparation for undergraduate students in the Faculty of Architecture in response to the ASEAN Economic Community (AEC)?		
RQ2.1: What are the undergraduate students' opinions regarding English language preparation in response to the ASEAN Economic Community (AEC)?	Semi-structured interview	Content analysis
RQ2.2: What are the instructors' opinions regarding English language preparation in response to the ASEAN Economic Community (AEC)?	Semi-structured interview	Content analysis

Research Questions	Research Instruments	Data Analysis
RQ2.3: What are the stakeholders' opinions regarding English language preparation in response to the ASEAN Economic Community (AEC)?	Semi-structured interview	Content analysis

CHAPTER IV

FINDINGS

The present study focused on finding out the needs of English preparation for undergraduate students in the Faculty of Architecture in response to the AEC reported by 300 architecture students, ten instructors, and five stakeholders in the field of architecture. This chapter presented the data analysis collected from the study with six research questions in each group of participants. In addition, the qualitative data obtained from the semi-structured interview was reported to gain in-depth information to answer and triangulate the result from the needs assessment questionnaires.

The findings in this chapter were presented in four main parts:

    4.1   Demographic background of the participants

        4.1.1   Demographic background of undergraduate students

        4.1.2   Demographic background of the instructors

        4.1.3   Demographic background of the stakeholders

    4.2   The participants' self-perception towards the AEC and its preparation.

    4.3   The participants' perceived needs of English preparation in response to the AEC:

        4.3.1   The summary of undergraduate students' perceived needs of English preparation in response to the AEC.

        4.3.2   The summary of instructors' perceived needs of English preparation for the undergraduate students in response to the AEC.

        4.3.3   The summary of stakeholders' perceived needs of English preparation for the architects in response to the AEC.

4.4   The opinion of participants   regarding English preparation in response to the AEC.

    4.4.1   The opinion of undergraduate students about English courses being currently offered to them in the Faculty of Architecture.

    4.4.2   The opinion of instructors about English courses being currently offered to the undergraduate students in the Faculty of Architecture.

    4.4.3   The opinion of stakeholders about English courses being currently offered to the undergraduate students in the Faculty of Architecture.

4.1   Demographic background of the participants

The first section dealt with the demographic characteristics of the three groups of participants: undergraduate students, instructors, and stakeholders.

4.1.1   Demographic background of undergraduate students

The obtained data from Part I of the English for Architecture Needs Analysis Questionnaire: Undergraduate Student (See Appendix A) illustrated a profile of undergraduate students: gender, age, the year of study in the university, specialty, years of studying English, experience of being exchange student in the English-speaking country, and self-perception of English proficiency level.

Table 2 The demographic background of undergraduate students

General Information	Number	Percentage
Gender		
Male	48	16
Female	252	84
Total	300	100
Age		
18	-	-
19	36	12
20	246	82
21	18	6
Total	300	100
Year of study in the university		
Second-year student	12	4
Third-year student	131	43.70
Fourth-year student	157	52.30
Fifth-year student	-	-
Total	300	100
Specialty		
Architecture	50	16.70
Industrial Design	88	29.30
Landscape Architecture	20	6.70
Interior Architecture	30	10
Urban and Regional Planning	112	37.30
Housing Development	-	-
Total	300	100
Years of study English		
6-10 years	32	10.70
11-15 years	177	59
Over 15 years	91	30.30
Total	300	100
Exchange students in the English-speaking country		
Used to be	49	16.30
Never	251	83.70
Total	300	100

Table 2 The demographic background of undergraduate students (Continued)

General Information	Number	Percentage
Self-perception of English proficiency level		
Excellent	-	-
Good	59	19.70
Average	209	69.70
Poor	32	10.70
Total	300	100
Self-perception of English skills you perform best		
Listening	85	28.30
Speaking	46	15.30
Reading	154	51.30
Writing	15	5
Total	300	100
Self-perception of English skills you perform least		
Listening	73	24.30
Speaking	119	39.70
Reading	23	7.70
Writing	85	28.30
Total	300	100

As shown in Table 2, the total number of participants who were the undergraduate students was 300. 84 percent of them were female, whereas 16 percent were male. Of the participants, 82 percent were twenty years old. The majority of undergraduate students were in a third year and fourth year. The percentage of them in six specific fields of study ranged from 6.70 percent for Landscape Architecture to 37.30 percent for Urban and Regional Planning. There were not the participants from the Department of Housing Development in this study. In terms of duration in English language learning, over half of undergraduate students who have studied English for 11 to 15 years were the largest group of the study (59 percent). Regarding the self-perception of English proficiency, most of students (69.70 percent) perceived that their English proficiency was in average level. When it comes to the English language

skills, many students perceived themselves most proficient in reading skill with the highest percentage of responses (51.30 percent). However, as English are not their first language and the medium of instruction in the schools, 39.70 percent of the students revealed their weakest skill was speaking.

4.1.2   Demographic background of the instructors

The obtained data from Part I of the English for Architecture Needs Analysis Questionnaire: Instructors (See Appendix B) illustrated a profile of the instructors: gender, age, educational background, specialty, study-abroad experience and teaching experience.

Table 3 The demographic background of instructors

General Information	Number	Percentage
Gender		
Male	6	60
Female	4	40
Total	10	100
Age		
Below 25 years old	-	-
25-30 years old	1	10
31-35 years old	2	20
Over 35 years old	7	70
Total	10	100
Educational background		
Bachelor's Degree	-	-
Master's Degree	5	50
Doctoral Degree	5	50
Total	10	100
Study-abroad experience		
Used to study abroad	8	80
Never	2	20
Total	10	100

Table 3 The demographic background of instructors (Continued)

General Information	Number	Percentage
Teaching experience		
1-5 years	2	20
6-10 years	1	10
11-15 years	1	10
Over 15 years	6	60
Total	10	100

There were ten instructors from the Faculty of Architecture, Chulalongkorn University. As presented in Table 3, six of them were male and the others were female. Most of the instructors were over 35 years old. Regarding educational background, half of the instructors obtained Master's degree, while the rest of them did a doctoral degree. Most of them used to study abroad in the country where English is the first or second language such as the United States of America, Canada, and France. The instructors who have teaching experience for over 15 years constituted the largest groups (60 percent).

4.1.3 Demographic background of the stakeholders

The obtained data from Part I of the English for Architecture Needs Analysis Questionnaire: Stakeholders (See Appendix C) illustrated a profile of the stakeholders: gender, age, educational background, work experience, self-perception of English proficiency level, language skills and elements which the participants used most, frequency of using English in the job and people with whom the participants usually use English.

Table 4 The demographic background of stakeholders

General Information	Number	Percentage
Gender		
Male	3	60
Female	2	40
Total	5	100
Age		
Below 25 years old	-	-
25-30 years old	3	60
31-35 years old	1	20
Over 35 years old	1	20
Total	5	100
Educational background		
Bachelor's Degree	1	20
Master's Degree	4	80
Doctoral Degree	-	-
Total	5	100
Work experience		
1-5 years	4	80
6-10 years	-	-
11-15 years	-	-
Over 15 years	1	20
Total	5	100
Self-perception of English proficiency level		
Excellent	-	-
Good	-	-
Average	5	100
Poor	-	-
Total	5	100
Self-perception of English skills you perform best		
Listening	2	40
Speaking	1	20
Reading	2	40
Writing	-	-
Total	5	100
Self-perception of English skills you perform least		
Listening	-	-
Speaking	2	40
Reading	-	-
Writing	3	60
Total	5	100

Table 4 The demographic background of stakeholders (continued)

General Information	Number	Percentage
Language skills and elements which the participants used most		
Listening	1	20
Speaking	2	40
Reading	2	40
Writing	-	-
General terms and technical terms in architecture field	-	-
Grammar	-	-
Total	5	100
Frequency of using English in the job		
Regularly	-	-
Often	-	-
Occasionally	5	100
Seldom	-	-
Total	5	100
People with whom the participants usually use English		
Foreign clients	2	40
Employer	-	-
Colleagues	-	-
Etc. (documents)	3	60
Total	5	100

As illustrated in Table 4, out of the total number of stakeholders, three of them were male and two were female. Their age range was 25 to 30 years old. Regarding their educational background, most of the stakeholders (four out of five) obtained Master's degree and one of them had a Bachelor's degree. The majority of the stakeholders have worked for one to five years, while only one participant has spent more than 15 years of experience in architectural field. From Table 4, it can be noted that all stakeholders perceived their English proficiency was in average level. They ranked listening and reading equally as the skills they can perform best, whereas

writing was their weakest skill. As for the English skills and elements, the stakeholders ranked speaking and reading as the skills they used most in their routine jobs, but all of them used English in the job occasionally. Furthermore, they used English mainly for documental jobs (60 percent) and with their clients (40 percent).

4.2 The participants' self-perception towards the AEC and its preparation

According to the study, this part reported the participants' self-perception towards ASEAN and the AEC that has the impact on them. The result of this part was presented in the form of mean, standard deviation, and the meaning of each response as presented in table 5

The participants revealed their perception regarding AEC understanding and its preparation as shown by ten questions below.

Table 5 The participants' self-perception towards the AEC and its preparation

Understanding of AEC and its preparation	Students Mean (SD)	Instuctors Mean (SD)	Stakeholders Mean (SD)
1.1 You have the understanding about ASEAN.	3.60 (0.54)	2.10 (0.56)	3.60 (0.54)
1.2 You have the understanding about intra-regional Economic cooperation under the establishment of ASEAN Economic Community or AEC.	3.20 (0.83)	2.00 (0.47)	3.20 (0.83)
1.3 You know that architectural services will be freed up in the region in 2015.	3.20 (0.83)	2.40 (0.51)	3.20 (0.83)

Table 5 The participants' self-perception towards the AEC and its

preparation (Continued)

Understanding of AEC and its preparation	Students Mean (SD)	Instuctors Mean (SD)	Stakeholders Mean (SD)
1.4 You know that architects who want to be registered as ASEAN Chartered Professional Architect and work in the region need to have qualifications, practical experience, and conditions as specified in Mutual Recognition Arrangement (MRA)on architectural services.	2.60 (0.89)	1.90 (0.73)	2.60 (0.89)
1.5 You have prepared yourselves in response to professional liberalization in the region	2.20 (0.83)	2.10 (0.56)	2.20 (0.83)
1.6 The adaptation for working in ASEAN with colleagues who have diversity of languages and cultures is essential.	2.60 (0.89)	3.60 (0.84)	2.60 (0.89)
1.7 When you realize the expansion of labor market in ASEAN, it is your responsibility to improve yourselves in terms of knowledge, working skills, and language proficiency to be needed in the job market	2.60 (0.89)	3.40 (0.51)	2.60 (0.89)
1.8 You have high level of English proficiency to compete with other labors in ASEAN job market.	2.20 (0.83)	2.20 (0.63)	2.20 (0.83)
1.9 The English language courses currently offered by the Faculty of Architecture are able to appropriately serve your needs of English proficiency for your prospect of job affected from the influence of the AEC.	2.20 (1.09)	2.10 (0.31)	2.20 (1.09)
1.10 You need to improve their English proficiency in response to the competition in ASEAN job market.	3.20 (0.83)	3.90 (0.31)	3.20 (0.83)
Total	2.80 (0.55)	2.57 (0.54)	2.80 (0.55)

*** The criteria for evaluating Mean score are divided into four scales: 3.26 -

4.00 = strongly agree, 2.51 - 3.25 = agree, 1.76 - 2.50 = disagree, 1.00 - 1.75 =

strongly disagree

As can be seen in Table 5, the understanding of undergraduate students about the AEC was rated in a high level. They had the understanding about ASEAN (Mean= 3.60, SD= 0.54) and intra-regional economic cooperation under the establishment of the AEC (Mean= 3.20, SD= 0.83) that has a result in the liberalization of architectural services based on the specification in Mutual Recognition Arrangement on architectural services in 2015. Most of students realized that the expansion of labor market in ASEAN urged them to improve their knowledge, working skills, and English language proficiency in order to be needed in the job market (Mean= 2.60, SD= 0.89). However, they have not prepared themselves in response to professional liberalization in the region with the mean score 2.20 (SD=0.83). They also perceived that they did not have high level of English proficiency to compete with other labors in ASEAN job market (Mean= 2.20, SD= 0.83) and the English language courses offered by the Faculty of Architecture was not able to serve their needs for working in the region (Mean= 2.20, SD= 1.09). Therefore, most of the students thought that they need to improve their English more so as to reap the benefits from ASEAN job market (Mean= 3.20, SD= 0.83).

The instructors revealed their perception regarding the undergraduate students' understanding of AEC and its preparation that the undergraduate students did not have the understanding about ASEAN and the AEC with the mean score 2.10 and 2.00. Likewise, they also felt that students did not realize about the freed-up architectural services and the registered ASEAN architects as specified in Mutual Recognition Arrangement on architectural services. In instructors' opinions, the students have not yet prepared themselves for architectural liberalization (Mean= 2.10, SD=0.56). Nevertheless, the instructors considered the adaptation for working in the atmosphere

of language and cultural diversity was important (Mean= 3.60, SD= 0.84) and the students need to improve themselves for being needed in ASEAN job market. Concerning students' English potential to compete in ASEAN job market, the instructors thought the students' English proficiency was not in the satisfactory level (Mean= 2.20, SD= 0.63). This might relate to English courses in the university did not serve the students' needs in order to compete with others in ASEAN (Mean= 2.10, SD= 0.31). The instructors, thus, thought the students should improve their English ability more with the highest mean score 3.90 (SD= 0.31).

The stakeholders revealed their perception regarding the understanding of AEC and its preparation that they had the understanding about ASEAN (Mean= 3.60) and the AEC (Mean= 3.20). Moreover, they realized that this economic cooperation brings about the liberalization of architectural services in ASEAN; as a result, architects who want to be a registered architect in ASEAN should have the qualification as determined by Mutual Recognition Arrangement (MRA) on architectural services. However, the stakeholders felt they did not prepare themselves for this change (Mean= 2.20, SD= 0.83). Although their preparation for the AEC were not ready, they considered that it was essential to adapt themselves for diversity of languages and culture in ASEAN (Mean= 3.0, SD= 0.70) and they needed to improve their working skills, English language proficiency more for being a good candidate in ASEAN job market. The main factor that hinders stakeholders from taking benefit in ASEAN job market is English proficiency as they reported they did not have high level English ability to compete in this job market (Mean= 2.20, SD=0.83). They also thought that their knowledge of English in the university did not serve their needs for the new challenge in ASEAN (Mean= 2.20, SD=1.09). Therefore, they considered to

improve the level of English proficiency more to respond to AEC (Mean= 3.20, SD= 0.83).

4.3 The participants' perceived needs of English preparation in response to the AEC

Research question 1: What are the needs of English preparation for undergraduate students in the Faculty of Architecture in response to the AEC?

In order to answer this research question, three sets of the questionnaires were employed as the instruments to find the answers to the question. The needs of English preparation for the undergraduate students in response to the AEC were analyzed by descriptive statistics: mean and standard deviation. The frequencies of participants' responses, namely "Most," "A lot," "A little," and "Least" were reported to determine the participants' perceived English language needs for four major areas: language structure, rhetorical categories, language functions, and language skills.

Table 6 The perceived needs of English language structures

Perceived needs of Language structures	Students Mean (SD)	Instructors Mean (SD)	Stakeholders Mean (SD)
1.1 Technical terms used in architecture Texts	2.98 (0.67)	3.00 (0.81)	3.20 (0.83)
1.2 General terms used architecture texts	3.13 (0.53)	3.20 (0.63)	3.00 (0.70)
1.3 Technical terms in area of specialization	2.71 (0.59)	3.00 (0.81)	3.20 (0.83)
1.4 Word structures (e.g., compounding, affixation, nominalization, etc.)	2.98 (0.62)	2.90 (0.87)	2.60 (1.34)

Table 6 The perceived needs of English language structures (Continued)

Perceived needs of Language structures	Students Mean (SD)	Instructors Mean (SD)	Stakeholders Mean (SD)
1.5 Grammatical structures frequently used in scientific discourse (e.g., present participles, passives, conditionals, etc.)	2.95 (0.79)	2.70 (0.67)	2.60 (1.14)
1.6 Grammatical structures for general communications (e.g., tenses, aspects, modality, etc.)	3.09 (0.76)	2.70 (0.82)	2.80 (1.09)
1.7 Signaling syntactic boundaries using punctuation marks (e.g., comma, colon, semicolon, dash, etc.)	3.05 (0.62)	2.70 (0.67)	2.40 (0.89)
Total	2.98 (0.38)	2.88 (0.58)	2.82 (0.86)

*** The criteria for evaluating Mean score are divided into four scales: 3.26 - 4.00 = Most, 2.51 - 3.25 = A lot, 1.76 - 2.50 = A little, 1.00 - 1.75 = Least

As shown in Table 6, considering the needs of undergraduate students for English language structures, it was found that Item 1.2 "General terms used in architecture texts" was the language structures the students needed the most (Mean= 3.13), while "Grammatical structures for general communication" and "Signaling syntactic boundaries using punctuation mark" were ranked in the second (Mean =3.09) and the third (Mean= 3.05). Surprisingly, only one item perceived by undergraduate students to be less needed for the AEC was Item 1.3 "Technical terms in your area of specialization" with the mean score 2.71.

According to table 6, the total mean of language structures suggested that the instructors felt students should require "General terms used in architecture texts" the most as it was ranked the highest mean in this category. Additionally, the students

should be proficient in "Technical terms used in architecture texts" and "Technical terms used in their area of specification" with the equal mean score 3.00. The third ranking of language was "Word structures (e.g., compounding, affixation, nominalization, etc.)" However, the instructors thought students had less needs of "Grammatical structures frequently used in scientific discourse" (Mean= 2.70), and "Signaling syntactic boundaries using punctuation marks" (Mean= 2.70).

According to stakeholders, the ranking data of language structure showed clearly that six out of seven items were considered to be significantly needed. Two items with highest mean of response 3.20 were "Technical terms used in architecture texts" and "Technical terms used in area of specialization." Additional two items with high mean of responses were "General terms used in architecture texts" (Mean= 3.00) and "Grammatical structures for general communications" (Mean= 2.80). Only one item as perceived by these stakeholders to be less needed in their job was "Signaling syntactic boundaries using punctuation marks" (Mean= 2.40).

As can be seen from the needs of language structures, top three items they were in agreement of needs were "General terms used in architecture texts," "Technical terms used in architecture texts," "Technical terms used in their area of specification, " "Grammatical structures for general communication," and "Word structures (e.g., compounding, affixation, nominalization, etc.)"

Table 7 The perceived needs of English rhetorical categories

Perceived needs of Rhetorical categories	Students Mean (SD)	Instructors Mean (SD)	Stakeholders Mean (SD)
2.1 Logical connectors used to link clauses and sentences (e.g., therefore, hence, consequently, as a result, etc.)	2.94 (0.71)	2.60 (0.84)	2.80 (1.30)
2.2 Classification (e.g., consist of, is divided into, is composed of, etc.)	3.01 (0.66)	2.70 (0.67)	2.40 (1.14)
2.3 Definition (e.g., is known as, is called, mean, etc.)	3.11 (0.59)	2.60 (0.69)	2.80 (0.83)
2.4 Exemplification (e.g., such as, like, e.g., for instance, etc.)	3.23 (0.65)	2.70 (0.67)	3.20 (1.30)
2.5 Generalization (e.g., in other words, in short, in conclusion, etc.)	3.16 (0.54)	2.60 (0.51)	2.80 (1.09)
2.6 Chronological sequence (e.g., at first, then, next, afterwards, etc.)	2.87 (0.59)	2.90 (0.73)	2.80 (1.09)
Total	3.05 (0.49)	2.68 (0.52)	2.80 (1.09)

*** The criteria for evaluating Mean score are divided into four scales: 3.26 - 4.00 = Most, 2.51 - 3.25 = A lot, 1.76 - 2.50 = A little, 1.00 - 1.75 = Least

With respect to the rhetorical categories as presented in Table 7, undergraduate students thought that "Exemplification (e.g., such as, like, e.g., for instance, etc.)" was most needed in these categories (Mean= 3.23). "Generalization (e.g., in other words, in short, in conclusion, etc.)" was ranked the second and "Definition (e.g., is known as, is called, mean, etc.)" was ranked the third, while "Chronological sequence (e.g., then, next, afterwards, etc.)" was least needed (Mean= 2.87) as it was ranked the sixth.

As for rhetorical categories, the instructors considered the undergraduate students should put emphasis on "Chronological sequence" the most. The next two

categories should be "Classification," and "Exemplification" with the mean score 2.70. "Logical connectors used to link clauses and sentences" should be the third category that students pay attention to. Of six items of rhetorical categories, the instructors realized "Generalization" was less needed for students.

The stakeholders needed "Exemplification" the most. Additional rhetorical categories included "Logical connectors used to link clauses and sentences" (Mean= 2.80), "Definition" (Mean= 2.80), "Generalization" (Mean= 2.80, SD=1.09), and "Chronological sequence" (Mean= 2.80). Nevertheless, stakeholders reported less needed for Item 2.2 "Classification" (Mean= 2.40).

Regarding the needs of rhetorical categories, the top three ranking among three groups of participants was "Exemplification," "Logical connectors used to link clauses and sentences," "Generalization," and "Definition."

Table 8 The perceived needs of English language functions

Perceived needs of Language functions	Students Mean (SD)	Instructors Mean (SD)	Stakeholders Mean (SD)
3.1 Describing processes and procedures	3.09 (0.61)	3.20 (0.78)	3.40 (0.89)
3.2 Giving instructions or directions	3.02 (0.56)	3.00 (0.66)	3.20 (0.83)
3.3 Reporting information from other sources	3.02 (0.29)	3.00 (0.66)	3.20 (1.30)
3.4 Describing an object in terms of contrast and comparison in dimensions (e.g., volume, thickness, height, speed, shape, etc.)	3.14 (0.42)	3.10 (0.73)	2.80 (1.30)

Table 8 The perceived needs of English language function (Continued)

Perceived needs of Language functions	Students Mean (SD)	Instructors Mean (SD)	Stakeholders Mean (SD)
3.5 Summarizing the results of a group project, a technical report, or a scientific text	3.02 (0.57)	2.90 (0.87)	2.80 (1.30)
3.6 Using tables, diagrams and graphs to summarize data	2.68 (0.57)	3.30 (0.82)	3.20 (1.30)
3.7 Understanding and verbalizing numbers (e.g., fractions, decimals, time, equations, etc.)	2.92 (0.43)	2.70 (0.82)	3.40 (1.34)
3.8 Understanding and verbalizing common symbols (e.g., addition, division, square root, x squared, etc.)	2.68 (0.69)	2.70 (0.67)	3.40 (0.67)
3.9 Making an outline for a presentation, report or project	3.21 (0.69)	3.30 (0.82)	3.40 (0.67)
Total	2.99 (0.34)	3.02 (0.64)	3.20 (1.14)

*** The criteria for evaluating Mean score are divided into four scales: 3.26 - 4.00 = Most, 2.51 - 3.25 = A lot, 1.76 - 2.50 = A little, 1.00 - 1.75 = Least

As illustrated in Table 8, the top three ranking items of language functions that the undergraduate students needed the most were Item 3.9 "Making an outline for a presentation, report or project," Item 3.4 "Describing an object in terms of contrast and comparison in dimensions (e.g., volume, thickness, height, speed, shape, etc.)," and Item 3.1 "Describing processes and procedures" as indicted by the mean score 3.21, 3.14, and 3.09 respectively. Item 3.6 "Using tables, diagrams and graphs to summarize data" seemed to be perceived as less needed among those architecture students.

The instructors perceived that the language functions that students significantly needed the most should be "Making an outline for a presentation, report

or project and using tables, diagrams and graphs to summarize data" (Mean= 3.30). Other language functions' needs included "Describing processes and procedures" (Mean= 3.20), and "Describing an object in terms of contrast and comparison in dimensions" (Mean= 3.10). However, the need of "Summarizing the result of a group project, a technical report, or a scientific text" was less needed for students.

The stakeholders had highest needs in "Understanding and verbalizing numbers," "Understanding and verbalizing common symbols," and "Making an outline for a presentation, report or project" as determined by the equally highest mean score 3.40. Additionally, highly significant needs were "Describing process and procedures" (Mean= 3.40), "Reporting instructions or directions" (Mean= 3.20), and "Using tables and diagrams and graphs to summarize data" (Mean= 3.20). The two last ranking of needs in language functions were "Describing an object in terms of contrast and comparison in dimension" and "Summarizing the results of a group project, a technical report, or a scientific text."

For the needs of language functions, three groups of participants agreed that "Making an outline for a presentation, report or project" was most needed as it was ranked the first in this category. The second and the third ranking of language functions among these participants was "Describing processes and procedures" and "Describing an object in terms of contrast and comparison in dimensions (e.g., volume, thickness, height, speed, shape, etc.)"

Table 9 The perceived needs of English language skills: listening

Perceived needs of listening skills	Students Mean (SD)	Instructors Mean (SD)	Stakeholders Mean (SD)
4.1 Understanding everyday conversation (e.g., face-to-face conversation)	3.10 (0.64)	3.10 (0.87)	3.20 (0.83)
4.2 Understanding business telephone conversation	2.99 (0.53)	2.90 (0.87)	3.00 (1.00)
4.3 Understanding what clients want	3.24 (0.49)	3.20 (0.78)	3.20 (1.09)
4.4 Comprehending spoken discourse on architecture topics	3.36 (0.54)	3.10 (0.73)	3.00 (1.00)
4.5 Listening to verbal instructions	3.33 (0.53)	3.00 (0.66)	3.20 (1.09)
4.6 Listening to lecture, talk, presentations, discussions, seminar, and conference	3.17 (0.44)	3.20 (0.91)	3.00 (1.00)
4.7 Listening to news related to the field of architecture	3.07 (0.77)	3.10 (0.87)	3.00 (1.00)
Total	3.18 (0.41)	3.08 (0.74)	3.08 (0.94)

*** The criteria for evaluating Mean score are divided into four scales: 3.26 - 4.00 = Most, 2.51 - 3.25 = A lot, 1.76 - 2.50 = A little, 1.00 - 1.75 = Least

Considering seven items of listening skill, it was found that the undergraduate students considerably needed to "Comprehend spoken discourse on architecture topics" and "Listen to verbal instructions" as those two items were rated with the highest mean score 3.36 and 3.33 respectively. Moreover, they also claimed that they wanted to "Understand what clients want" (Mean= 3.24). However, they did not pay much attention to Understanding business telephone conversation (Mean= 2.99) as indicated in Table 9.

The instructors significantly needed the undergraduate students to "Listen to presentations, discussions, seminar, and conference" the most (Mean= 3.20). In addition, the instructors considered it was very essential for students to be able to "Understand what clients want" (Mean=3.20) and "Understand everyday conversation" and "Listen to news related to the field of architecture" with the equal mean score 3.10. Nonetheless, "Understanding business telephone conversation" was less needed for students (Mean= 2.90).

As illustrated in Table 9, the stakeholders considerably needed to listen to English in their daily job. They needed to "Understand what clients want" and "Listen to verbal instructions" the most (Mean= 3.20). Moreover, they needed to "Understand everyday conversation" (Mean= 3.20). The last four items that had equal mean score (Mean= 3.00) included "Understanding business telephone conversation," "Comprehending spoken discourse on architecture topics," "Listening to verbal instructions," and "Listening to news related to the field of architecture."

In respect of listening skill, the items that were needed among three groups of participants were "Understanding what clients want," "Listening to verbal instructions," "Understanding everyday conversation," and "Comprehending spoken discourse on architecture topics."

Table 10 The perceived needs of English language skills: speaking

Perceived needs of speaking skills	Students Mean (SD)	Instructors Mean (SD)	Stakeholders Mean (SD)
4.8 Conducting face-to-face conversation	3.10 (0.76)	3.00 (0.81)	3.20 (0.83)
4.9 Conducting business telephone conversation	3.30 (0.67)	3.00 (0.81)	3.00 (1.00)
4.10 Asking and answering questions during the group discussions	3.23 (0.65)	3.10 (0.87)	3.00 (1.00)
4.11 Presenting ideas, a project, and a technical report	3.18 (0.63)	3.10 (0.87)	2.80 (1.30)
4.12 Expressing opinions about different topics (e.g., agreeing or disagreeing, persuading, suggesting, discussing etc.)	3.30 (0.67)	3.20 (0.91)	2.60 (1.34)
4.13 Explaining work plan, construction process, directions and instruction of how to perform a job	3.17 (0.67)	3.30 (0.82)	2.80 (1.30)
4.14 Making requests (i.e. for further information or confirmation)	3.10 (0.63)	3.20 (0.78)	2.60 (1.14)
Total	3.20 (0.55)	3.12 (0.76)	2.85 (1.03)

*** The criteria for evaluating Mean score are divided into four scales: 3.26 - 4.00 = Most, 2.51 - 3.25 = A lot, 1.76 - 2.50 = A little, 1.00 - 1.75 = Least

In terms of speaking skill in Table 10, it was noted that undergraduate students wanted to "Conduct business telephone conversation" and "Express opinions about different topics (e.g., agreeing or disagreeing, persuading, suggesting, discussing etc.)" the most with the highest mean score 3.30. Additionally, "Asking and answering questions during the group discussions" (Mean= 3.23, SD= 0.65) and "Presenting ideas, a project, and a technical report" (Mean=3.18, SD= 0.63) were also

significantly needed among architecture students, whereas "Making requests (i.e. for further information or confirmation)" were ranked in the sixth for speaking skill.

The instructors totally needed the undergraduate students to have the following English speaking skills. The highest needs in speaking was "Explaining work plan, construction process, directions, and instruction of how to perform a job" (Mean= 3.30). The instructors also felt that the students should be able to "Express opinions about different topics such as agreeing or disagreeing, persuading, and suggesting" (Mean=3.20) and to "Make requests for further information or confirmation" (Mean=3.20). The last two items of speaking skill that instructors less needed were "Conducting face-to-face conversation" and "Conducting business telephone conversation."

The stakeholders totally needed speaking skill in their job. They had high needs in "Conducting face-to-face conversation" as it was ranked the first. The second and the third ranking included "Conducting business telephone conversation," "Asking and answering questions during the group discussions," "Presenting ideas, a project, and a technical report," and "Explaining work plan, construction process, directions and instruction of how to perform a job." However, "Making requests (i.e. for further information or confirmation)" was least needed in this category.

With respect to speaking skill, all of these items were considerably needed among the participants "Conduct business telephone conversation," "Conducting face-to-face conversation," "Expressing opinions about different topics (e.g., agreeing or disagreeing, persuading, suggesting, discussing etc.)," "Explaining work plan, construction process, directions, and instruction of how to perform a job,"

"Asking and answering questions during the group discussions," and "Presenting ideas, a project, and a technical report."

Table 11 The perceived needs of English language skills: reading

Perceived needs of reading skills	Students Mean (SD)	Instructors Mean (SD)	Stakeholders Mean (SD)
4.15 Understanding scientific and architecture texts in various fields for comprehension	3.27 (0.54)	3.30 (0.82)	3.20 (0.83)
4.16 Reading safety rules, notices, and warning signs	3.17 (0.67)	3.20 (0.78)	3.40 (0.89)
4.17 Reading instructions in the areas of architecture	3.28 (0.55)	3.30 (0.82)	3.40 (0.89)
4.18 Reading technical report and minutes of a meeting in the field of architecture	3.10 (0.39)	3.10 (0.73)	3.20 (1.09)
4.19 Reading business correspondence (e.g., business letters, e-mails, memorandums)	3.22 (0.48)	3.30 (0.82)	3.20 (0.83)
4.20 Reading information about the entire construction process, construction contractors, and the budget of a project	3.16 (0.66)	3.10 (0.87)	2.80 (1.30)
4.21 Reading articles from news and journals related to the field of architecture	3.15 (0.75)	3.00 (0.66)	3.00 (1.00)
Total	3.19 (0.38)	3.18 (0.72)	3.17 (0.90)

*** The criteria for evaluating Mean score are divided into four scales: 3.26 - 4.00 = Most, 2.51 - 3.25 = A lot, 1.76 - 2.50 = A little, 1.00 - 1.75 = Least

Table 11 illustrated the participants' needs of reading skill. The undergraduate students found "Reading instructions in the areas of architecture" and "Understanding scientific and architecture texts in various fields for comprehension" were very

essential for them with the nearly equaled mean score 3.28 and 3.27. In addition, they paid much attention to "Read business correspondence (e.g., business letters, e-mails, memorandums)" (Mean= 3.22). It was surprising that students rated Item 4.18 "Reading technical report and minutes of a meeting in the field of architecture" as the least needed in reading skill.

According to the instructors, the undergraduate students considerably needed to "Understand architecture texts in various fields for comprehension," "Read instructions in the areas of architecture," and "Read business correspondence such as business letters, e-mails, and memorandums" with the equally highest mean of 3.30. Highly significant needs involved "Reading safety rules, notices, and warning signs" and "Reading information about the entire construction process, construction contractors, and the budget of a project. However, "Reading articles from news and journals related to the field of architecture" was not significantly needed in the view of instructors (Mean= 3.00, SD= 0.66).

Stakeholders perceived that it was very essential to be able to "Read instructions in the area of architecture" and "Read safety rules, notices, and warning signs" as indicated with the highest mean score 3.40 (SD= 0.89). They also reported significant needs in "Reading technical report and minutes of a meeting in the field of architecture" (Mean= 3.20), "Understanding architecture texts in various fields for comprehension (Mean= 3.20), "Reading business correspondence (Mean= 3.20). Surprisingly, "Reading information about the entire construction process, construction contractors, and the budget of a project" was less needed in reading skill (Mean= 2.80).

Of the seven items concerning reading skill, "Reading instructions in the areas of architecture" was significantly needed among participants. The next items were "Understanding scientific and architecture texts in various fields for comprehension," "Reading safety rules, notices, and warning signs," and "Read business correspondence (e.g., business letters, e-mails, memorandums)."

Table 12 The perceived needs of English language skills: writing

Perceived needs of writing skills	Students Mean (SD)	Instructors Mean (SD)	Stakeholders Mean (SD)
4.22 Writing a technical report or a project summary	3.06 (0.81)	3.20 (0.78)	2.60 (1.34)
4.23 Writing business correspondence (e.g., business letters, e- mails, and memorandums	3.05 (0.74)	3.40 (0.84)	2.60 (1.51)
4.24 Writing a resume	3.37 (0.59)	3.50 (0.84)	2.40 (1.51)
4.25 Filling in forms	3.26 (0.55)	3.10 (0.87)	2.60 (1.34)
4.26 Writing publishable articles	3.01 (0.59)	2.60 (0.51)	2.40 (1.34)
4.27 Writing references and bibliography	2.89 (0.67)	2.80 (0.63)	2.20 (1.30)
4.28 Writing captions to describe diagrams, tables, and graphs	2.87 (0.78)	2.90 (0.56)	2.80 (1.64)
4.29 Writing description about the location and design of room, furniture, garden, floor plan, etc.	2.83 (0.63)	3.20 (0.78)	2.80 (1.64)
Total	3.04 (0.47)	3.08 (0.59)	2.55 (1.34)

*** The criteria for evaluating Mean score are divided into four scales: 3.26 - 4.00 = Most, 2.51 - 3.25 = A lot, 1.76 - 2.50 = A little, 1.00 - 1.75 = Least

Regarding writing skill, the undergraduate students found they needed to "Write a resume" the most (Mean= 3.37). High needs of writing involved "Filling in forms" (Mean= 3.26). The next item that was also needed included "Writing a technical report or a project summary." The least needs of writing skill were "Writing description about the location and design of room, furniture, garden, floor plan, etc."

The instructors considered that undergraduate students significantly needed to use the skill in "Writing a resume" (Mean= 3.50). Other writing skills such as "Writing business correspondence," "Writing a technical report or a project summary," and "Writing description about the location and design of room, furniture, garden, and floor plan" were also important for architecture students. However, according to instructors, some functions of writing such as "Writing references and bibliography" and "Writing publishable articles" were not significant to the undergraduate students as they were rated 2.80, and 2.60, respectively.

The stakeholders significantly needed to "Write captions to describe diagrams, tables and graphs" and "Write description about the location and design of room, furniture, garden and floor plan" with the highest mean 2.80. They also needed to use the skill in "Writing business correspondence" (Mean= 2.60), "Writing a technical report or a project summary" (Mean= 2.60), and "Filling in forms" (Mean= 2.60). Nevertheless, "Writing references and bibliography" were not important to the stakeholders.

Of the nine items regarding writing skill, five of them were considered important and significant to participants which were "Write a resume," "Filling in forms," "Writing business correspondence," "Writing a technical report or a project

summary," and "Writing description about the location and design of room, furniture, garden, floor plan, etc."

4.3.1 The summary of undergraduate students' perceived needs of English preparation in response to the AEC.

Research question 1.1: In the view of undergraduate students, what are the needs of English preparation for them in response to the AEC?

According to the findings, 300 undergraduate students revealed their English-language needs assessed by highest mean of responses in each English language components as presented below:

Table 13 The top-three ranking English language needs of undergraduate students in four major areas

English language components	The top-three ranking English language needs in four major areas
1.1 Language structures	1. General terms used in architecture texts 2. Grammatical structures for general communication 3. Signaling syntactic boundaries using punctuation mark
1.2 Rhetorical categories	1. Exemplification (e.g., such as, like, e.g., for instance, etc.) 2. Generalization (e.g., in other words, in short, in conclusion, etc.) 3. Definition (e.g., is known as, is called, mean, etc.)
1.3 Language functions	1. Making an outline for a presentation, report or project 2. Describing an object in terms of contrast and comparison in Dimensions (e.g., volume, thickness, height, speed, shape, etc.) 3. Describing processes and procedures.

Table 13 The top-three ranking English language needs of undergraduate students in four major areas (Continued)

English language components	The top-three ranking English language needs in four major areas
1.4 Language skills	
1.4.1 Listening skills	1. Comprehending spoken discourse on architecture topics 2. Listening to verbal instructions 3. Understanding what clients want
1.4.2 Speaking skills	1. Conducting business telephone conversation 1. Expressing opinions about different topics (e.g., agreeing or disagreeing, persuading, suggesting, discussing etc.) 2. Asking and answering questions during the group discussions 3. Presenting ideas, a project, and a technical report
1.4.3 Reading skills	1. Reading instructions in the areas of architecture 2. Understanding scientific and architecture texts in various fields for comprehension 3. Reading business correspondence (e.g., business letters, e-mails, and memorandums)
1.4.4 Writing skills	1. Writing a resume 2. Filling in forms 3. Writing a technical report or a project summary

In terms of language structures, undergraduate students needed "General terms used in architecture texts," "Grammatical structures for general communication," and "Signaling syntactic boundaries using punctuation mark."

In area of rhetorical categories, "Exemplification," "Generalization," and "Definition" were what undergraduate students needed.

Regarding language functions, their needs included "Making an outline for a presentation, report or project," "Describing an object in terms of contrast and comparison in dimensions," and "Describing processes and procedures."

Concerning language skills, their needs stressed on "Comprehending spoken discourse on architecture topics," "Listening to verbal instructions," "Understanding what clients want," "Conducting business telephone conversation," "Expressing opinions about different topics," Asking and answering questions during the group discussions," "Presenting ideas, a project, and a technical report," "Reading instructions in the areas of architecture," "Understanding scientific and architecture texts in various fields for comprehension," "Reading business correspondence (e.g., business letters, e-mails, and memorandums)," "Writing a resume," "Filling in forms," and "Writing a technical report or a project summary."

4.3.2 The summary of instructors' perceived needs of English preparation for the undergraduate students in response to the AEC.

Research question 1.2: In the view of instructors, what are the needs of English preparation for the undergraduate students in response to the AEC?

When it comes to the perceived needs of instructors, the instructors thought the undergraduate students should require each English language components as followed:

Table 14 The top-three ranking English language needs of undergraduate

students in four major areas in the view of instructors

English language components	The top-three ranking English language needs in four major areas
1.1 Language structures	1. General terms used in architecture texts 2. Technical terms used in architecture texts 2. Technical terms used in area of specification 3. Word structures (e.g., compounding, affixation, nominalization, etc.)
1.2 Rhetorical categories	1. Chronological sequence (e.g., at first, then, next, afterwards, etc.) 2. Classification (e.g., consist of, is divided into, is composed of, etc.) 2. Exemplification (e.g., such as, like, e.g., for instance, etc.) 3. Logical connectors used to link clauses and sentences (e.g., therefore, hence, consequently, as a result, etc.) 3. Definition (e.g., is known as, is called, mean, etc.) 3. Generalization (e.g., in other words, in short, in conclusion, etc.)
1.3 Language functions	1. Making an outline for a presentation, report or project 1. Using tables, diagrams and graphs to summarize data 2. Describing processes and procedures 3. Describing an object in terms of contrast and comparison in dimensions (e.g., volume, thickness, height, speed, shape, etc.)
1.4 Language skills 　　1.4.1 Listening skills	1. Listening to lecture, talk, presentations, discussions, seminar, and conference 1. Understanding what clients want 2. Understanding everyday conversation (e.g., face-to-face conversation) 2. Listening to news related to the field of architecture 2. Comprehending spoken discourse on architecture topics 3. Listening to verbal instructions
1.4.2 Speaking skills	1. Explaining work plan, construction process, directions, and instruction of how to perform a job 2. Expressing opinions about different topics (e.g., agreeing or disagreeing, persuading, suggesting, discussion, etc.) 2. Making requests for further information or confirmation 3. Asking and answering questions during the group discussions 3. Presenting ideas, a project, and a technical report

Table 14 The top-three ranking English language needs of undergraduate students in four major areas in the view of instructors (Continued)

English language components	The top-three ranking English language needs in four major areas
1.4 Language skills 1.4.3Reading skills	1. Understanding scientific and architecture texts in various fields for comprehension 1. Reading business correspondence (e.g., business letters, e-mails, and memorandums) 1. Reading instructions in the areas of architecture 2. Reading safety rules, notices, and warning signs 3. Reading information about the entire construction process, construction contractors, and the budget of a project 3. Reading technical report minutes of a meeting in the field of architecture
1.4.4 Writing skills	1. Writing a resume 2. Writing business correspondence (e.g., business letters, e- mails, and memorandums) 3. Writing a technical report or a project summary 3. Writing description about the location and design of room, furniture, garden, and floor plan

In the perception of instructors, the language structures that undergraduate students should master in were "General terms used in architecture texts," "Technical terms used in architecture texts and in area of specification," and "Word structures."

In terms of rhetorical categories, undergraduate should be able to use "Chronological sequence," "Classification," "Exemplification," "Logical connectors used to link clauses and sentences," "Definition," and "Generalization."

For language functions, undergraduate students should be proficient in "Making an outline for a presentation, report or project," "Using tables, diagrams and

graphs to summarize data," "Describing processes and procedures," and "Describing an object in terms of contrast and comparison in dimensions."

Finally, the instructors perceived that language skills that undergraduate students should pay much attention to included "Listening to lecture, talk, presentations, discussions, seminar, and conference," "Understanding what clients want," "Understanding everyday conversation," "Listening to news related to the field of architecture," "Comprehending spoken discourse on architecture topics," "Listening to verbal instructions," "Explaining work plan, construction process, directions, and instruction of how to perform a job," "Expressing opinions about different topics," "Making requests for further information or confirmation," "Asking and answering questions during the group discussions," "Presenting ideas, a project, and a technical report," "Understanding scientific and architecture texts in various fields for comprehension," "Reading business correspondence," "Reading instructions in the areas of architecture," "Reading safety rules, notices, and warning signs," "Reading information about the entire construction process, construction contractors, and the budget of a project," "Reading technical report minutes of a meeting in the field of architecture," "Writing a resume," "Writing business correspondence," "Writing a technical report or a project summary," and "Writing description about the location and design of room, furniture, garden, and floor plan."

4.3.3 The summary of stakeholders' perceived needs of English preparation for the architects in response to the AEC.

Research question 1.3: In the view of stakeholders, what are the needs of English preparation for the architects in response to the AEC?

For stakeholders, they revealed their perceived needs of English language for the architects by identifying three items with highest mean of responses in each English language components as followed:

Table 15 The top-three ranking English language needs of stakeholders in four major areas

English language components	The top-three ranking English language needs in four major areas
1.1 Language structures	1. Technical terms used in architecture texts 1. Technical terms used in area of specialization 2. General terms used in architecture texts 3. Grammatical structures for general communications
1.2 Rhetorical categories	1. Exemplification (e.g., such as, like, e.g., for instance, etc.) 2. Logical connectors used to link clauses and sentences (e.g., therefore, hence, consequently, as a result, etc.) 2. Definition (e.g., is known as, is called, mean, etc.) 2. Generalization (e.g., in other words, in short, in conclusion, etc.) 2. Chronological sequence (e.g., at first, then, next, afterwards, etc.) 3. Classification (e.g., consist of, is divided into, is composed of, etc.)

Table 15 The top-three ranking English language needs of stakeholders in four major areas (Continued)

English language components	The top-three ranking English language needs in four major areas
1.3 Language functions	1. Understanding and verbalizing numbers (e.g., fractions, decimals, time, equations, etc.) 1. Understanding and verbalizing common symbols (e.g., addition, division, square root, x squared, etc.) 1. Describing processes and procedures. 1. Making an outline for a presentation, report or project 2. Reporting instructions or directions 2. Using tables and diagrams and graphs to summarize data 2. Giving instructions or directions 3. Describing an object in terms of contrast and comparison in dimensions (e.g., volume, thickness, height, speed, shape, etc.) 3. Summarizing the results of a group project, a technical report, or a scientific text
1.4 Language skills 1.4.1 Listening skills	1. Understanding everyday conversation (e.g., face-to-face conversation) 1. Understanding what clients want 1. Listening to verbal instructions 2. Understanding business telephone conversation 2. Comprehending spoken discourse on architecture topics 2. Listening to lecture, talk, presentations, discussions, seminar, and conference 2. Listening to news related to the field of architecture
1.4.2 Speaking skills	1. Conducting face-to-face conversation 2. Conducting business telephone conversation 2. Asking and answering questions during the group discussions 3. Presenting ideas, a project, and a technical report 3. Explaining work plan, construction process, directions and instruction of how to perform a job

Table 15 The top-three ranking English language needs of stakeholders in four major areas (Continued)

English language components	The top-three ranking English language needs in four major areas
1.4 Language skills	
1.4.3 Reading skills	1. Reading instructions in the area of architecture
	1. Reading safety rules, notices, and warning signs
	2. Reading technical report and minutes of a meeting in the field of Architecture
	2. Understanding scientific and architecture texts in various fields for comprehension
	2. Reading business correspondence (e.g., business letters, e-mails, and memorandums)
	3. Reading articles from news and journals related to the field of architecture
1.4.4 Writing skills	1. Writing captions to describe diagrams, tables and graphs
	1. Writing description about the location and design of room, furniture, garden and floor plan
	2. Writing business correspondence (e.g., business letters, e- mails, and memorandums)
	2. Writing a technical report or a project summary
	2. Filling in forms
	3. Writing a resume
	3. Writing publishable articles

The stakeholders' perceived needs of language structures were "Technical terms used in architecture texts and in area of specialization," "General terms used in architecture texts, "and" Grammatical structures for general communications."

In terms of rhetorical categories, they needed "Exemplification," "Logical connectors used to link clauses and sentences," "Definition," "Generalization," "Chronological sequence," and "Classification."

Regarding language functions, stakeholders would like to master in "Understanding and verbalizing numbers," "Understanding and verbalizing common symbols," "Describing processes and procedures," "Making an outline for a

presentation, report or project," "Reporting instructions or directions," "Using tables and diagrams and graphs to summarize data," "Giving instructions or directions," "Describing an object in terms of contrast and comparison in dimensions," and "Summarizing the results of a group project, a technical report, or a scientific text."

With respect to language skills, the stakeholders needed to be proficient in "Understanding everyday conversation," "Understanding what clients want," "Listening to verbal instructions," "Understanding business telephone conversation," "Comprehending spoken discourse on architecture topics," "Listening to lecture, talk, presentations, discussions, seminar, and conference," "Listening to news related to the field of architecture," "Conducting face-to-face conversation," "Conducting business telephone conversation," "Asking and answering questions during the group discussions," "Presenting ideas, a project, and a technical report," "Explaining work plan, construction process, directions and instruction of how to perform a job," "Reading instructions in the area of architecture," "Reading safety rules, notices, and warning signs," "Reading technical report and minutes of a meeting in the field of Architecture," "Understanding scientific and architecture texts in various fields for comprehension," "Reading business correspondence," "Reading articles from news and journals related to the field of architecture," "Writing captions to describe diagrams, tables and graphs," "Writing description about the location and design of room, furniture, garden and floor plan," "Writing business correspondence," "Writing a technical report or a project summary, Filling in forms, Writing a resume, and Writing publishable articles."

4.4   The opinion of participants regarding English preparation in response to the AEC.

Research question 2: What are their opinions regarding English preparation for undergraduate students in the Faculty of Architecture in response to the AEC?

In order to respond to the research question two, the findings from the semi-structured interview were reported to show the participants' opinions towards the English preparation for the AEC. The analysis of semi-structured interview revealed that most of participants were not satisfied with the English courses being offered by the Faculty of Architecture. The findings were reported below.

4.4.1   The opinion of undergraduate students about English courses being currently offered to them in the Faculty of Architecture.

Research question 2.1: What are undergraduate students' opinions regarding English preparation in response to the AEC?

The findings from the in-depth interview were reported in three topics: the importance of the AEC, problems of English teaching and learning in the classroom, and English skills that participants need in response to the AEC. Undergraduate students revealed that the AEC will increase their job opportunities to work in ASEAN countries. The following statements demonstrated the positive responses of undergraduate students.

"The establishment of AEC will help me find the job in ASEAN more easily"
[Student # 3]

"The AEC increases the job opportunities for Thai architects to work abroad"
[Student # 7]

"In my opinion, the AEC has the positive impact for Thai architects in terms
of job employment. I would like to work in Singapore." [Student # 8]

However, they had the concern that they would lose these opportunities to work in ASEAN because of their low level of English proficiency. The undergraduate students thought that there are some problems of English teaching and learning in classroom as illustrated below:

"I think that there are the lack of listening and speaking in classroom."
[Student # 2]

"English instructor should emphasize on English communication not only
grammatical structures." [Student# 5]

"I am too shy to speak English in class because I am afraid of making
mistakes" [Student# 1]

These findings showed that the students found the traditional way of teaching and learning in the university not effective and practical for preparing them to compete in the ASEAN job market. They also pointed out that they needed the Faculty of Architecture to prepare them in terms of integrated English skills more.

The emphasis of English teaching and learning should be put on the integrated skills and a lot of practice in classroom. The participants said:

> *"The curriculum or instructor should pay attention listening and speaking skill more and develop the lesson plan focusing on the integrated skills."* [Student # 2]

> *"Integrated skills are what I really required. I would like to improve all of them"* [Student# 5]

4.4.2   The opinion of instructors about English courses being currently offered to the undergraduate students in the Faculty of Architecture.

Research question 2.2: What are the instructors' opinions regarding English preparation in response to the AEC?

The instructors realized the importance of the AEC and had the concern about AEC and its preparation for undergraduate students as demonstrated below.

> *"The AEC is the subject to take consideration. I think some undergraduate students do not have the awareness of AEC and its benefits."* [Instructor # 4]

> *"It takes time to prepare undergraduate students to be readily equipped with the professional qualifications for working in ASEAN"* [Instructor # 6]

"The students will received the benefits from this economic integration but they needs to have the full understanding of AEC and the regulation for the liberalization of architects" [Instructor # 10]

They were afraid that Thai undergraduate students would have the disadvantage in terms of English proficiency if they were evaluated against architects from the countries that have higher standard of English. So, the instructors gave interesting information about English courses and problems of the learning and teaching English as four instructors stated:

"I think English content and practice that are currently provided for the students in the Faculty of Architecture is insufficient for enhancing them to compete in ASEAN job market" [Instructor # 4]

"The opportunity to use English language is limited with the number of students in class and they do not use it both in classroom and in daily basis." [Instructor # 5]

"Many students have different levels of English proficiency, so some English content might not be suitable for students who have lower level of English proficiency." [Instructor # 3]

"The duration of class hour and the lack of English practice outside classroom cause students not to be proficient in English." [Instructor # 9]

Instructor also shared their opinion that is relevant to the English courses being offered to the students should relate to students' study purposes which would be ESP or EAP. Moreover, the English skills that students will be used in their future career should be added in the current English courses.

"Using the target language in classroom, encouraging students to use it, or opening English program might help." [Instructor # 4]

"Personally, English teaching under English for Academic Purposes or EAP quite serves the needs of architecture students" [Instructor # 7]

"The content of English should relate to students' academic disciplines and specific study skills." [Instructor # 8]

"English instructors should put emphasis on the skills of presenting and explaining a project work, listening to the meeting or the seminar and then enable to summarize the important information from it, writing formal business correspondence and e-mails, and writing a minute of the meeting." [Instructor# 1]

4.4.3 The opinion of stakeholders about English courses being currently offered to the undergraduate students in the Faculty of Architecture.

Research question 2.3: What are the stakeholders' opinions regarding English preparation in response to the AEC?

The stakeholders realized that the AEC will help them to work freely in ASEAN countries. They also believed that Thai architects have the potential to perform architectural work better than many countries.

"The effective of AEC definitely brings about the challenge to Thai architects in aspects of the cooperation with foreign clients or company." [Stakeholder # 1]

"Thai architects can compete with other ASEAN architects" [Stakeholder # 3]

However, the stakeholders thought that the primary factor that makes them have less opportunity to get a job is low level of English language proficiency.

"I realize the benefits of AEC in terms of job opportunities but my English proficiency is limited" [Stakeholder # 2]

"English proficiency will be the indicative of the chance to get a job from foreign clients and company." [Stakeholder # 5]

The stakeholders provided useful information about English courses that might suite the incoming AEC as three of them stated:

"The English courses for architects should have the English skills especially, in presenting a project, a work plan, and understand what clients want." *[Stakeholder # 1]*

"The English curriculum for architects should emphasize on the technical terms, language functions and skills used in architecture context and job." *[Stakeholder # 4]*

"The institution should prepare students in terms of English language in all skills, not just reading or writing" *[Stakeholder # 4]*

In summary, the opinion about English courses for architects and skills that were essential for architecture students should correspond with the career goals, the job functions and real-world situation. Therefore, ESP or EAP courses and integrated English skills would probably meet the needs of the stakeholders.

CHAPTER V

DISCUSSION

This study emphasized two research questions to determine the perceived English language needs of undergraduate students in the Faculty of Architecture in response to the AEC. The first research question, "What are the needs for English preparation of undergraduate students in the Faculty of Architecture in response to the AEC?", and its three sub-questions addressed the personal perceptions of English-language requisites in relation to the students' present and future academic needs for the AEC. Four major areas were addressed: language structures, rhetorical categories, language functions, and principle language skills (listening, speaking, reading, and writing). The second research question, "What are their opinions regarding English preparation for undergraduate students in the Faculty of Architecture in response to the AEC?", and its three sub-questions investigated the participants' perceptions regarding the topic of the question. The research investigation was conducted in the second semester of the 2013 academic year.

The instrument of data collection employed for this study was a four-part self-assessment questionnaire. Part I consisted of demographic information such as age, gender, major area of study, years of studying English, and a self-perception of English proficiency in the four language skills. Part II consisted of ten items concentrated on understanding of the AEC and preparation for it. The four categories used to report the participants' understanding of each item in Part II included "Strongly agree," "Agree," "Disagree," and "Strongly disagree". Part III dealt with 51 items for English-language needs in four major areas: language structures (seven items), rhetorical categories (six items), language functions (nine items), and language

skills (29 items), sub-divided into listening skills (seven items), speaking skills (seven items), reading skills (seven items), and writing skills (eight items). The four categories used to report level of need for each item in Part III were "Most," "A lot," "A little," and "Least". Part IV was the comment and suggestion section, intended for participants to add more information about English preparation needs in response to the AEC.

Data was received from a total of 315 administered questionnaires: 300 questionnaires from undergraduate students, 10 from instructors, and 5 from stakeholders, which were coded and calculated employing SPSS program. The descriptive statistical analyses of the frequencies and percentages of the participants' responses were presented to determine their demographic information in Part I. The mean and standard deviation were used to communicate the participants' responses in Part II and III. Content analysis was employed to analyse data from the semi-structured interview.

5.1   Discussion of the findings

It is undeniable that the establishment of the AEC brings about rapidly increasing academic mobility in higher education in order to prepare for the AEC. In terms of AEC preparation, the most important task is to improve the English proficiency of Thai students. Although the majority of the Thai curriculum at the tertiary level of education offers a selection of English courses for undergraduate students, it remains insufficient to serve their needs for academic purposes, in genuine communicative exchange, and for use in future employment opportunities.

The discussion of this study is organised in two parts: needs assessment results and opinions toward English-language needs in response to the AEC.

5.1.1 Needs assessment results of English-language needs for the AEC

English-language needs for the AEC are related to four majors areas: language structures, rhetorical categories, language functions, and language skills (listening, speaking, reading, and writing).

In terms of language structures, three groups of participants agreed that their understanding of "General and technical terms used in architectural texts," "Technical terms in areas of specialisation," and "Grammatical structures used in scientific discourse" were inadequate in relation to their needs. As presented in the findings, participants perceived technical terms as most essential. These findings are related to the study of Basturkmen (1996), who revealed that technical terms are the most difficult for undergraduate EFL students to learn with regard to personal perception of their abilities and knowledge. The EFL students in the study of Basturkmen also reported that technical terms were what they needed for their study area. Moreover, this present study corresponds with the study of Aliakbari and Boghayeri (2014), which revealed that Iranian architecture students had the desire to practice how to use technical words in real situations because they found it necessary. Furthermore, they considered these kinds of lexicons hard to understand if they were not in the field of architecture.

The findings also show that "Grammatical structures used in scientific discourse" are reported to be necessary for undergraduate students' English courses. These findings are in relation to the study of Akaranithi (2007), which reported that, in terms of the preferred practice of teaching, architecture students liked to practice grammar. The lexical and linguistic structures frequently used to determine grammatical relationships in EST discourse include compounding, articles, modality,

tenses, aspects, passives, complex sentences with many dependent clauses, etc. The reason these lexical and grammatical structures are important language structures for undergraduate students is that the grammatical usage of these structures in their native language is non-existent (e.g., articles and aspects). Some grammatical usage is also uncommon and dissimilar to their native language (e.g., tenses, modality, compounding, nominalization, and dependent clauses). However, it is worth noting that the perceived needs of undergraduate students in terms of the general terms used in their architecture texts seems to be greater than the grammatical structures. This may be attributed to some undergraduate students having had background knowledge of certain grammatical structures from their high school education and their first-year compulsory English course, with the primary emphasis placed on general terms used in their field.

With respect to rhetorical categories, most participants reported that "Exemplification" and "Chronological sequence" were important. This result is congruent with the communicative needs of undergraduate students and architects since these categories are basic elements used in subject matter at the workplace, such as the need to explain construction planning, projects or design procedures by giving an example or describing in chronological sequence.

Regarding language functions, participants generally agreed that "Making outlines for presentations, reports or projects," "Describing processes and procedures," and "Describing objects in terms of contrast and comparison of dimensions" are most important and needed. These functions are suggested as important skills for EFL undergraduate students to learn. The results of this study are similar to the study of Kittidhaworn (2001), which indicated that EFL engineering

students needed knowledge of language functions as essential study skills. Outlining has been considered a skill that EFL students at the tertiary level should specialize in order to organise and understand the information in textbooks. In addition, "Describing processes and procedures" as well as "Describing objects in terms of contrast and comparison of dimensions" are included in architectural work processes (Chen, 2008). Architects should be able to have these basic communicative skills, so it is not surprising that the participants needed these items and rated them as top-ranked.

Concerning language skills (listening, speaking, reading, and writing), the perceived needs of each group of participants were slightly different. Among the four language skills determined by the mean scores, undergraduate students perceived the speaking skill as the most essential, followed by reading, listening, and writing. This was relevant to the data received from the "Demographic information" section of participants' self-perception of English skills. Most undergraduate students evaluated themselves as performing speaking at the weakest level. Therefore, they reflected this in their need for speaking skills. Likewise, the study of Khamkhien (2010) reported that Thai EFL students have limited competence in oral communication. Yoshida (2002) provided interesting information that Asian EFL classes have certain characteristics that do not help Asian EFL students to gain proficiency in English communication in real situations. These characteristics involve students typically being passive in the classroom, believing in the native-like language model, being afraid of producing grammatical errors, not communicating in the target language with others outside the classroom, and focusing on the grammatical knowledge they need to pass an exam rather than the practical language skills required for effective

communication. For this reason, communicative skills are at the base of the problems for EFL students and need to be improved. On the contrary, instructors and stakeholders had the general perception that undergraduate students and future architects should concentrate on reading skills. This was probably because reading is the most fundamental skill for studying and understanding the concepts of architectural work. This is similar to the study of Akaranithi (2007), which found that the perception of instructors about the reading skill to be important for undergraduate students in their study and work.

The previously mentioned paragraph discussed the overall picture of participants' perceived needs of English language skills. In the next section, each language skill will be discussed in detail.

Regarding the listening skill, "Comprehending spoken discourse on architecture topics" was most needed among undergraduate students, while "Understanding what clients want," "Listening to lecture, talk, presentations, discussions, seminar, and conference," and "Listening to verbal instructions" were skills that instructors and stakeholders most required. Undergraduate students had the perceived needs of listening skill, used mainly in their area of study to complete the course, while instructors and stakeholders needed students and future architects to have listening skills for working in real situations.

For the speaking skill, "Conducting business telephone conversation," and "Expressing opinions about different topics" were what undergraduate students most needed. Undergraduate students may think that collocation for business telephone conversation is hard and specific. Thus, they reflected their primary needs in this skill. Moreover, the students' need for expressing opinions about different topics was

similar to the perceived needs of engineering students in a study conducted by Kittidhaworn (2001). Expressing opinions about different topics requires specific genres as well as expressions for agreeing or disagreeing, persuading, suggesting, and discussing. From the perception of instructors and stakeholders, "Explaining work plans, construction processes, directions, and instructions on how to perform a job," and "Conducting face-to-face conversation" comprised the primary needs of undergraduate students and future architects. Instructors and stakeholders expected undergraduate students and future architects to be able to communicate using basic conversation skills on a regular basis and in the workplace, not specifically like undergraduate students thought.

Regarding reading skills, undergraduate students needed to "Read instructions in the areas of architecture", while instructors needed undergraduate students to be able to "Understand scientific and architecture texts in various fields for comprehension," "Read business correspondence," and "Read instructions in the areas of architecture." Meanwhile, stakeholders needed the architects to be able to "Read instructions in the area of architecture" and "Read safety rules, notices, and warning signs." From three groups of participants, they reflected their primary need similarly for "Reading instructions in the area of architecture", since it is necessary for those studying or working in the architectural field. Likewise, Kittidhaworn (2001) reported that, in terms of reading skill, engineering students reflected their primary need in "Reading public instructions in the areas of science or engineering" as well.

Concerning writing skills, undergraduate students and instructors agreed that "writing a resume" was a crucial need for undergraduate students to accurately present their qualification for job opportunities. On the other hand, stakeholders

perceived "Writing captions to describe diagrams, tables and graphs" and "Writing descriptions about the location and design of a room, furniture, garden and floor plan" as the most necessary writing skill. They showed that their needs in writing are used mainly in specific work objectives.

In conclusion, the undergraduate students' perceived needs for English language skills were mainly in response to academic objectives, as listed below:

- Comprehending spoken discourse on architecture topics

- Conducting business conversations by telephone

- Expressing opinions about different topics (e.g., agreeing or disagreeing, persuading, suggesting, discussing etc.)

- Reading instructions in the areas of architecture

- Writing a resume

The instructors' perceived needs of English language skills necessary for undergraduate students were a combination of academic objectives and career's objectives, as presented below:

- Listening to lecture, talk, presentations, discussions, seminar, and conference

- Understanding what clients want

- Explaining work plan, construction process, directions, and instruction of how to perform a job

- Understanding scientific and architecture texts in various fields for comprehension

- Reading business correspondence (e.g., business letters, e-mails, and memorandums)

- Reading instructions in the areas of architecture

- Writing a resume

The stakeholders' perceived needs of English language skills necessary for architects were mainly in response to career objectives, as presented below:

- Understanding everyday conversation (e.g., face-to-face conversation)

- Understanding what clients want

- Listening to verbal instructions

- Conducting face-to-face conversation

- Reading instructions in the area of architecture

- Reading safety rules, notices, and warning signs

- Writing captions to describe diagrams, tables and graphs

- Writing descriptions about the location and design of room, furniture, garden and floor plan

5.1.2 The opinion towards English-language needs in response to the AEC

According to the findings, the participants' opinions towards English-language needs in response to the AEC provided interesting information in three topics, which included the importance of the AEC, problems of English teaching and learning in the classroom, and English skills that participants need for the AEC.

In terms of the importance of the AEC, the three groups of participants found the establishment of AEC beneficial in many aspects. It increases job opportunities, opens their perspective in the field of architecture, and helps them recognize the

importance of working in a new environment and performing effective work to be good contributors in the region. Their positive opinions corresponded with the report conducted by the University of Thai Chamber (2012) concerning the knowledge and understanding of the AEC and MRA on architectural services. It reported that about 50 percent of Thai architects understood the establishment of the AEC and had an understanding that free labour markets under MRA will benefit architects by being able to work freely in the participating member countries of ASEAN.

With respect to the problems of English teaching and learning in the classroom, the three groups of participants realized that these problems would be an obstacle for undergraduate students and future architects for gaining full benefits from the AEC. Undergraduate students revealed that English learning in university did not serve their needs on many levels, including the traditional way of teaching, which focuses on grammatical structures. They believed that there was overemphasis on separated skills instead of integrated ones, the irrelevance between the content of subject areas and students' academic goals and future career, and the lack of opportunity to use English, both in and outside the classroom. Moreover, instructors and stakeholders also shared the opinion that English courses offered to undergraduate students were not sufficient to enhance their ability to compete in the ASEAN job market. Their concerns included insufficient and appropriate content as well as target language for different students' level of English proficiency and opportunities for exposure to English communication on a regular basis. Yoshida (2002) pointed out that EFL students needed to use their English practically, so they needed to 1) rely on themselves and initiate communication, 2) encounter a diversity of linguistic varieties and values, with formal errors being common, and 3) use

English to communicate with other non-native speakers of English from many different language and culture backgrounds in order to improve the ability to produce and comprehend language. Furthermore, Tarone (2005) suggested that in order to help students use English more practically in real situations, instructors needed to encourage them to take a more active role in the classroom environment. The native-like model is not necessary and some mistakes should be tolerated because students learn to use English to communicate with others who have linguistic diversity.

When it comes to the English skills participants need in response to the AEC, the three groups of participants stressed on the content and language related to the students' study purposes and specific future career goals, English communication in a multilingual and multicultural context, and integrated skills. Since EFL students' goals include using English for academic and professional purposes as well as learning English as an international language for communication in a multilingual and multicultural context, the interweaving of language and content, called content-based instruction or CBI and English for Specific Purposes or ESP seems to fit the needs of participants in response to the AEC.

To be more specific about CBI and ESP, CBI is an approach referred to as the integrating of content and language learning. Its principle concerning integrated skills is based on the theory that language proficiency is the result of integrating the four language skills: listening, speaking, reading, and writing (Brinton, 2003). This corresponds with Nunan's view that using all four skills together can reflect what happens in the real world, where interaction involves multiple skills simultaneously (Nunan, 2003). Moreover, the students' lives, interests, and academic goals are the primary concern for choosing content because they will be more actively involved in

lessons and become more motivated. Language is learned most effectively when it is used as a way to serve students' interests and needs (Larson-Freeman, 2000). ESP is the teaching approach that emphasizes the specific knowledge and communication skills necessary for accomplishing specific purposes (Orr, 1998) within a specific discipline or profession. The subject matter should direct language learning and language studies should meet the specific learning needs of students for their field of study and work. From CBI principles and the concept of ESP, they would serve the needs of undergraduate students, instructors, and stakeholders in terms of teaching approach focusing on English skills in response to the AEC.

5.2 Implications of the findings

The findings of this study underline the investigation of English-language needs for the AEC by Thai undergraduate students across three groups of participants: architecture students, instructors, and stakeholders. The results from this study were used to design a course syllabus to match their primary needs. The researcher chose the content for designing the syllabus by picking the highest-ranking items of participants' English perceived needs in each of four major areas: language structures, rhetorical categories, language functions, and language skills. Subsequently, the matched items were grouped as content for a course syllabus, as shown in Table 16 below:

Table 16 Course contents derived from participants' needs

English language components	Perceived-needs of participants			Course contents that matched all participants' needs
	Undergraduate students	Instructors	Stakeholders	
Language structures	1.2 General terms used in architecture texts	1.2 General terms used in architecture texts	1.1 Technical terms used in architecture texts 1.3 Technical terms used in area of specialization	▪ General terms used in architecture texts ▪ Technical terms used in architecture texts and in area of specialization
Rhetorical categories	2.4 Exemplification (e.g., such as, like, e.g., for instance, etc.)	2.6 Chronological sequence (e.g., at first, then, next, afterwards, etc.)	2.4 Exemplification (e.g., such as, like, e.g., for instance, etc.)	▪ Exemplification (e.g., such as, like, e.g., for instance, etc.) ▪ Chronological sequence (e.g., at first, then, next, afterwards, etc.)
Language functions	3.9 Making an outline for a presentation, report or project	3.9 Making an outline for a presentation, report or project 3.6 Using tables, diagrams and graphs to summarize data	3.1 Describing processes and procedures. 3.7 Understanding and verbalizing numbers (e.g., fractions, decimals, time, equations, etc.) 3.8 Understanding and verbalizing common symbols (e.g., addition, division, square root, x squared, etc.) 3.9 Making an outline for a presentation, report or project	▪ Making an outline for a presentation, report or project ▪ Describing processes and procedures. ▪ Using tables, diagrams and graphs to summarize data ▪ Understanding and verbalizing numbers (e.g., fractions, decimals, time, equations, etc.) and common symbols (e.g., addition, division, square root, x squared, etc.)

Table 16 Course contents derived from participants' needs (Continued)

English language components	Perceived-needs of participants			Course contents that matched all participants' needs
	Undergraduate students	**Instructors**	**Stakeholders**	
Language skills				
Listening skill	4.4Comprehending spoken discourse on architecture topics	4.3Understanding what clients want 4.6 Listening to lecture, talk, presentations, discussions, seminar, and conference	4.1Understanding everyday conversation (e.g., face-to-face conversation) 4.3 Understanding what clients want 4.5 Listening to verbal instructions	▪ Understanding everyday conversation ▪ Understanding what clients want ▪ Comprehending spoken discourse on architecture topics ▪ Listening to verbal Instructions, lecture, talk, presentations, discussions, seminar, and conference
Speaking skill	4.9 Conducting business telephone conversation 4.12Expressing opinions about different topics (e.g., agreeing or disagreeing, persuading, suggesting, discussing etc.)	4.13Explaining work plan, construction process, directions, and instruction of how to perform a job	4.8 Conducting face-to-face conversation	▪ Conducting face-to-face conversation and business telephone conversation ▪ Expressing opinions about different topics (e.g., agreeing or disagreeing, persuading, suggesting, discussing etc.) ▪ Explaining work plan, construction process, directions, and instruction of how to perform a job

Table 16 (Continued) Course contents derived from participants' needs

English language components	Perceived-needs of participants			Course contents that matched all participants' needs
	Undergraduate students	Instructors	Stakeholders	
Language skills				
Reading skills	4.17 Reading instructions in the areas of architecture	4.15 Understanding scientific and architecture texts in various fields for comprehension 4.17 Reading instructions in the areas of architecture 4.19 Reading business correspondence (e.g., business letters, emails, memorandums)	4.16 Reading safety rules, notices, and warning signs 4.17 Reading instructions in the area of architecture	• Understanding scientific and architecture texts in various fields for comprehension • Reading safety rules, notices, and warning signs • Reading instructions in the areas of architecture • Reading business correspondence (e.g., business letters, e- mails, memorandums)
Writing skills	4.24 Writing a resume	4.24 Writing a resume	4.28 Writing captions to describe diagrams, tables and graphs 4.29 Writing description about the location and design of room, furniture, garden and floor plan	• Writing a resume • Writing captions to describe diagrams, tables and graphs • Writing description about the location and design of room, furniture, garden and floor plan

Regarding language structures, course content will place emphasis on general terms used in architecture texts, technical terms used in architecture texts and in areas of specialization. The students will learn these lexical words through the context of architectural texts.

Next, exemplification (e.g., such as, like, e.g., for instance, etc.) and chronological sequence (e.g., at first, then, next, afterwards, etc.) will be course content in terms of the needs in rhetorical categories.

When considering language functions, the course content will stress making an outline for a presentation, report or project, describing processes and procedures, using tables, diagrams and graphs to summarize data , understanding and verbalizing numbers (e.g., fractions, decimals, time, equations, etc.) and common symbols (e.g., addition, division, square root, x squared, etc.)

Concerning language skills, since the participants wanted to have the course consist of integrated skills, all four English skills ranked highest in each category will be included in the course content of any syllabus design. In terms of listening skills, the content will concentrate on everyday conversation, proper vocabulary, idioms, and common collocations used between architects and clients, as well as spoken discourse on architecture topics, verbal instructions, lectures, presentations, discussions, seminars, and conferences.

For speaking skills, the content will be focused on face-to-face conversation and business conversations by telephone, useful expressions used to express opinions about different topics (e.g., agreeing or disagreeing, persuading, suggesting, discussing etc.), how to explain work plans, construction processes, directions, and instructions for how to perform a job.

Concerning reading skills, the course content will relate to reading scientific and architecture texts in various fields for comprehension, reading safety rules, notices, and warning signs, reading instructions in the areas of architecture, and reading business correspondence (e.g., business letters, e- mails, memorandums).

Regarding writing skills, undergraduates will be able to write a resume, write captions to describe diagrams, tables and graphs, and write descriptions about the location and design of a room, furniture, garden and floor plan.

A sample of the 10-week course syllabus, which concerns the perceived needs of English language for undergraduate students, will be in Appendix D.

5.3   Recommendations for further studies

Although the samples for the study consisted of undergraduate students and instructors in the Faculty of Architecture, Chulalongkorn University and stakeholders in the Bangkok area, they constitute only a small portion of the overall population. As a result, the findings may not be generalised to the English-language needs of architecture students in other settings. Extended investigations based on a survey could be conducted for instructors and architecture students studying at the same level in two or more education institutions. The results may be similar or different in terms of the actual English-language needs revealed by each group of architecture students in different universities. Moreover, the survey should be administered to stakeholders working in different companies of different sizes and specialties as well in order to determine their actual English-language needs at work.

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APPENDICES

Appendix A

แบบสอบถามสำหรับนิสิตคณะสถาปัตยกรรมศาสตร์

การศึกษาการเตรียมความพร้อมด้านภาษาอังกฤษสำหรับนิสิตคณะสถาปัตยกรรมศาสตร์เพื่อการเข้าสู่ประชาคมเศรษฐกิจอาเซียน

ส่วนที่ 1 ข้อมูลทั่วไป

คำสั่ง : กรุณาทำเครื่องหมาย ✓ ในช่องสี่เหลี่ยม ☐ และเขียนคำตอบลงในช่องว่าง

1. เพศ ☐ หญิง ☐ ชาย

2. อายุ ☐ 18 ☐ 19

   ☐ 20 ☐ 21

3. ปีการศึกษา ☐ 2556 ☐ 2557

4. วิชาเอก ☐ สถาปัตยกรรมศาสตร์ ☐ ออกแบบอุตสาหกรรม

   ☐ ภูมิสถาปัตย์ ☐ สถาปัตยกรรมภายใน

   ☐ วางแผนภาคและเมือง ☐ เคหการ

5. นิสิตเรียนภาษาอังกฤษในระดับการศึกษาขั้นพื้นฐานเป็นระยะเวลาประมาณกี่ปี)

   ☐ 6-10 ปี ☐ 11-15 ปี

   ☐ มากกว่า 15 ปี

6. นิสิตเคยศึกษาในต่างประเทศหรือเป็นนักเรียนแลกเปลี่ยนในประเทศที่ใช้ภาษาอังกฤษเป็นภาษาหลักมาก่อน

   หรือไม่

   ☐ เคย ประเทศ_____ ☐ ไม่เคย

7. กรุณาประเมินระดับความสามารถในการใช้ภาษาอังกฤษโดยรวมของนิสิต

   ☐ ดีเยี่ยม ☐ ดี

   ☐ พอใช้ ☐ ต้องปรับปรุง

   7.1 ทักษะภาษาอังกฤษด้านใดที่นิสิตมีความถนัดมากที่สุด

   ☐ ฟัง ☐ พูด

   ☐ อ่าน ☐ เขียน

   7.2 ทักษะภาษาอังกฤษด้านใดที่นิสิตมีความถนัดน้อยที่สุด

   ☐ ฟัง ☐ พูด

   ☐ อ่าน ☐ เขียน

ส่วนที่ 2 การรับรู้และการเตรียมความพร้อมเพื่อเข้าสู่ประชาคมเศรษฐกิจอาเซียน

คำสั่ง: กรุณาทำเครื่องหมาย ✓ ลงในช่องว่างในแต่ละข้อโดยเลือก

4 = เห็นด้วยอย่างยิ่ง

3 = เห็นด้วย

2 = ไม่เห็นด้วย

1 = ไม่เห็นด้วยอย่างยิ่ง

การเตรียมความพร้อมเพื่อเข้าสู่ประชาคมเศรษฐกิจอาเซียน	ระดับที่ประเมิน			
	4	3	2	1
1. นิสิตรู้จัก "อาเซียน (ASEAN)"				
2. นิสิตรู้จักความร่วมมือทางเศรษฐกิจภายใต้กรอบ "ประชาคมเศรษฐกิจอาเซียน (ASEAN Economic Community: AEC)"				
3. นิสิตทราบถึงการเปิดเสรีวิชาชีพสถาปนิกซึ่งทำให้มีการเคลื่อนย้ายแรงงานในอาเซียนในปี 2015				
4. นิสิตทราบถึงการอำนวยความสะดวกในการเคลื่อนย้ายสถาปนิกในอาเซียนในรูปของการจัดทำความตกลงยอมรับร่วม(Mutual Recognition Arrangements: MRAs) โดยสถาปนิกที่มีคุณสมบัติตามที่กำหนดสามารถจดทะเบียนเป็นสถาปนิกวิชาชีพอาเซียน (ASEAN Chartered Professional Architect)				
5. นิสิตได้มีการเตรียมตัวเพื่อรับกับการเปิดเสรีวิชาชีพบริการทางสถาปนิก				
6. นิสิตคิดว่าการปรับตัวให้เข้ากับผู้ร่วมงานที่มีความหลากหลายทางเชื้อชาติ ภาษา และวัฒนธรรมเป็นสิ่งจำเป็น				
7. เมื่อนิสิตได้รับความรู้เกี่ยวกับการขยายตัวของตลาดแรงงาน นิสิตเห็นเป็นหน้าที่ของนิสิตที่จะต้องเพิ่มพูนความรู้ ความสามารถให้แก่ตนเองมากขึ้น เพื่อเป็นตัวเลือกที่ดีของตลาดแรงงาน				
8. นิสิตมีความสามารถในการสื่อสารภาษาอังกฤษดีและพร้อมจะแข่งขันในตลาดแรงงานระดับอาเซียน				
9. ความรู้ภาษาอังกฤษที่นิสิตได้รับจากการศึกษาในคณะสถาปัตยกรรมศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย สามารถตอบสนองความต้องการของนิสิตเพื่อแข่งขันในตลาดแรงงานอาเซียนได้				
10. นิสิตจำเป็นต้องพัฒนาทักษะการสื่อสารภาษาอังกฤษมากขึ้น				

ส่วนที่ 3 ความต้องการด้านภาษาอังกฤษของนิสิตคณะสถาปัตยกรรมศาสตร์

คำสั่ง: กรุณาทำเครื่องหมาย ✔ เพื่อแสดงความต้องการด้านภาษาอังกฤษของนิสิตในตารางข้างล่าง

4 = มากที่สุด

3 = มาก

2 = น้อย

1 = น้อยมากๆ

ความต้องการด้านภาษาอังกฤษของนิสิตคณะสถาปัตยกรรมศาสตร์	ระดับที่ประเมิน			
	4	**3**	**2**	**1**
1. โครงสร้างทางภาษา (Language Structures)				
1.1 คำศัพท์เฉพาะที่ใช้ในเนื้อหาด้านสถาปัตยกรรมศาสตร์ (Technical terms used in architecture texts)				
1.2 คำศัพท์ทั่วไปที่ใช้ในเนื้อหาด้านสถาปัตยกรรมศาสตร์ (General terms used architecture texts)				
1.3 คำศัพท์เฉพาะที่ใช้ในขอบเขตความเชี่ยวชาญ (Technical terms in your area of specialization)				
1.4 โครงสร้างคำ เช่น คำผสม, การนำเอาคำอุปสรรคมาเติมเข้าข้างหน้ารากศัพท์ หรือคำปัจจัยมาเติมข้างหลังรากศัพท์,การสร้างคำนาม (Word structures, e.g., compounding, affixation, nominalization, etc.)				
1.5 โครงสร้างไวยากรณ์ที่ใช้บ่อยในการสนทนาหรือบรรยายทางวิทยาศาสตร์ เช่น present participles, passives, conditionals (Grammatical structures frequently used in scientific discourse e.g., present participles, passives, conditionals, etc.)				
1.6 โครงสร้างไวยากรณ์ที่ใช้ในการสื่อสารทั่วไป เช่น tenses, aspects, modality (Grammatical structures for general communications e.g., tenses, aspects, modality, etc.)				
1.7 การบอกขอบเขตความสัมพันธ์ของประโยคโดยใช้เครื่องหมายวรรคตอน เช่น comma, colon, semicolon, dash (Signaling syntactic boundaries using punctuation marks e.g., comma, colon, semicolon, dash, etc.)				

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	4	3	2	1
2. หมวดการใช้ถ้อยคำ (Rhetorical Categories)				
2.1 คำเชื่อมที่ใช้เชื่อมความในวลีและประโยค เช่น therefore hence consequently as a result (Logical connectors used to link clauses and sentences e.g., therefore, hence, consequently, as a result, etc.)				
2.2 การแบ่งหมวดหมู่ โดยใช้คำเช่น consist of, is divided into, is composed of (Classification (e.g., consist of, is divided into, is composed of, etc.)				
2.3 คำอธิบายความหมาย เช่น is known as, is called (Definition e.g., is known as, is called, mean, etc.)				
2.4 การยกตัวอย่าง โดยใช้คำ เช่น such as, like, e.g., for instance (Exemplification e.g., such as, like, e.g., for instance, etc.)				
2.5 การกล่าวอย่างกว้างๆ โดยใช้คำเช่น in other words, in short, in conclusion (Generalization e.g., in other words, in short, in conclusion, etc.)				
2.6 การเรียงลำดับตามความสำคัญ โดยใช้คำเช่น at first, then, next, afterwards, ultimately (Chronological sequence e.g., at first, then, next, afterwards, ultimately, etc.)				
3. หน้าที่ของภาษา (Language Functions)				
3.1 การบรรยายขั้นตอนและกระบวนการ (Describing processes and procedures)				
3.2 การให้คำแนะนำและออกคำสั่ง (Giving instructions or directions)				
3.3 การรายงานข้อมูลจากแหล่งข้อมูล (Reporting information from other sources)				
3.4 การบรรยายวัตถุในทางเปรียบเทียบให้เห็นความแตกต่างในหลายๆมิติ เช่น ปริมาตรความจุ ความหนา ความสูง ความเร็ว และรูปร่าง (Describing an object in terms of contrast and comparison in dimensions e.g., volume, thickness, height, speed, shape, etc.)				
3.5 การสรุปผลโครงงานกลุ่ม รายงานทางเทคนิค หรือ เนื้อหาทางสถาปัตยกรรมศาสตร์ (Summarizing the results of a group project, a technical report, in architecture text)				
3.6 การใช้ตาราง แผนภาพ และกราฟ เพื่อสรุปข้อมูล (Using tables, diagrams and graphs to summarize data)				

ความต้องการด้านภาษาอังกฤษของนิสิตคณะสถาปัตยกรรมศาสตร์	ระดับที่ประเมิน			
	4	3	2	1
3.7 เข้าใจและแสดงให้เห็นจำนวนต่างๆ เช่น เศษส่วน ทศนิยม เวลา และสมการ (Understanding and verbalizing numbers e.g., fractions, decimals, time, equations, etc.)				
3.8 เข้าใจและแสดงให้เห็นสัญลักษณ์ทั่วไป เช่น การบวก หาร รากที่สอง (Understanding and verbalizing common symbols e.g., addition, division, square root, x squared, etc.)				
3.9 การสร้างโครงร่างเพื่อการนำเสนอผลงาน รายงานหรือโครงงาน Making an outline for a presentation, report or project				
4. **ทักษะภาษา (Language Skills)**				
Listening				
4.1 เข้าใจบทสนทนาที่ใช้ในชีวิตประจำวัน (Understanding everyday conversation (e.g., face-to-face conversation)				
4.2 เข้าใจบทสนทนาด้านธุรกิจผ่านทางโทรศัพท์ (Understanding business telephone conversation)				
4.3 เข้าใจในสิ่งที่ลูกค้าต้องการ (Understanding what clients want)				
4.4 เข้าใจบทสนทนาภาษาพูดในหัวข้อทางสถาปัตยกรรมศาสตร์ (Comprehending spoken discourse on architecture topics)				
4.5 เข้าใจการพูดออกคำสั่ง (Listening to verbal instructions)				
4.6 สามารถฟังการนำเสนอผลงาน การอภิปราย การสัมมนาและการประชุม (Listening to presentations, discussions, seminar, and conference)				
4.7 การฟังข่าวสารที่เกี่ยวข้องกับสายงานด้านสถาปัตยกรรมศาสตร์ (Listening to news related to the field of architecture)				
Speaking				
4.8 สามารถสนทนาแบบตัวต่อตัว (Conducting face-to-face conversation)				
4.9 สามารถสนทนาธุรกิจผ่านทางโทรศัพท์ (Conducting business telephone conversation)				
4.10 สามารถถามและตอบคำถามระหว่างการอภิปรายเป็นกลุ่มได้ (Asking and answering questions during the group discussions)				
4.11 สามารถนำเสนอความคิด โครงงานและรายงานทางเทคนิคได้ Presenting ideas, a project, and a technical report				

ความต้องการด้านภาษาอังกฤษของนิสิตคณะสถาปัตยกรรมศาสตร์	ระดับที่ประเมิน			
	4	3	2	1
4.12 สามารถแสดงความเห็นในหัวข้อที่แตกต่างกันได้ เช่น การเห็นด้วย ไม่เห็นด้วย การโน้มน้าว การแนะนำ (Expressing opinions about different topics e.g., agreeing or disagreeing, persuading, suggesting, etc.)				
4.13 สามารถอธิบายแผนงาน กระบวนการก่อสร้าง คำสั่งและแนะนำวิธีการปฏิบัติงาน (Explaining work plan, construction process, directions and instruction of how to perform a job)				
4.14 สามารถร้องขอข้อมูลเพิ่มเติมหรือการให้ความเห็นชอบ (Making requests (i.e. for further information or confirmation)				
Reading				
4.15 เข้าใจเนื้อหาทางด้านสถาปัตยกรรมศาสตร์ (Understanding scientific and architecture texts in various fields for Comprehension)				
4.16 สามารถอ่านกฎความปลอดภัย ป้ายประกาศ และป้ายเตือน (Reading safety rules, notices, and warning signs)				
4.17 สามารถอ่านคำสั่งในสายงานสถาปัตยกรรมศาสตร์ (Reading instructions in the areas of architecture)				
4.18 สามารถอ่านรายงานทางเทคนิค รายงานการประชุมในสายงานสถาปัตยกรรมศาสตร์ (Reading technical report and minutes of a meeting in the field of architecture)				
4.19 สามารถอ่านจดหมายธุรกิจ อีเมล์ บันทึกข้อความได้ (Reading business correspondence (e.g., business letters, e-mails, memorandums)				
4.20 สามารถอ่านข้อมูลเกี่ยวกับขั้นตอนการก่อสร้างทั้งหมด สัญญาการก่อสร้าง และงบประมาณโครงการ (Reading information about the entire construction process, construction contractors, and the budget of a project)				
4.21 สามารถอ่านบทความจากหนังสือพิมพ์และวารสารทางวิชาการที่เกี่ยวข้องกับสายงานด้านสถาปัตยกรรมศาสตร์ได้ (Reading articles from news and journals related to the field of architecture)				

ความต้องการด้านภาษาอังกฤษของนิสิตคณะสถาปัตยกรรมศาสตร์	ระดับที่ประเมิน			
	4	3	2	1
Writing				
4.22 เขียนรายงานทางเทคนิคและสรุปโครงงานได้ (Writing a technical report or a project summary)				

4.23 เขียนจดหมายธุรกิจ อีเมล์ และบันทึกข้อความได้
        (Writing business correspondence e.g., business letters, e- mails,
        and memorandums)				

4.24 เขียนประวัติย่อ (Writing a résumé)				
4.25 กรอกข้อมูลต่างๆ (Filling in forms)				
4.26 เขียนบทความเพื่อตีพิมพ์ (Writing publishable articles)				
4.27 เขียนอ้างอิงและบรรณานุกรม (Writing references and bibliography)				
4.28 เขียนคำบรรยายแผนภาพ ตารางและกราฟ (Writing captions to describe diagrams, tables, and graphs)				

4.29   เขียนคำบรรยายสถานที่ การออกแบบห้อง เฟอร์นิเจอร์ สวน และแผนผัง
        ชั้น และอื่นๆ
        (Writing description about the location and design of room,
        furniture, garden, floor plan, etc.)				

ส่วนที่4   ข้อเสนอแนะและความคาดหวังต่อวิชาภาษาอังกฤษสำหรับสถาปนิก

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บทสัมภาษณ์

1. ในความเห็นส่วนตัวของนิสิต ความร่วมมือทางเศรษฐกิจภายใต้กรอบ "ประชาคมเศรษฐกิจอาเซียน (ASEAN Economic Community: AEC)" จะมีผลกระทบต่อตัวนิสิตหรือไม่ อย่างไร

2. ในความเห็นส่วนตัวของนิสิต ความร่วมมือทางเศรษฐกิจภายใต้กรอบ "ประชาคมเศรษฐกิจอาเซียน (ASEAN Economic Community: AEC)" จะมีผลกระทบต่อวิชาชีพสถาปนิกหรือไม่ อย่างไร

3. เมื่อเข้าสู่ประชาคมเศรษฐกิจอาเซียน ภาษาอังกฤษจะถูกใช้เป็นภาษากลางในการติดต่อสื่อสารในอาเซียน นิสิตคิดว่าความรู้ภาษาอังกฤษที่นิสิตได้รับจากการศึกษาในสถาบันการศึกษาสามารถตอบสนองความต้องการของนิสิตเพื่อแข่งขันในตลาดแรงงานอาเซียนได้หรือไม่ อย่างไร โปรดอธิบาย

4. ปัจจัยใดที่ส่งผลให้นิสิตประสบปัญหาในการสื่อสารภาษาอังกฤษ (ตัวอย่างเช่น ฝึกฟังน้อย การเรียนการสอนไม่ตรงตามความต้องการของนิสิต)

5. ในความเห็นส่วนตัวของนิสิต การที่จะเตรียมความพร้อมเพื่อเข้าสู่ประชาคมเศรษฐกิจอาเซียน การจัดการเรียนการสอนภาษาอังกฤษควรจะเป็นอย่างไร
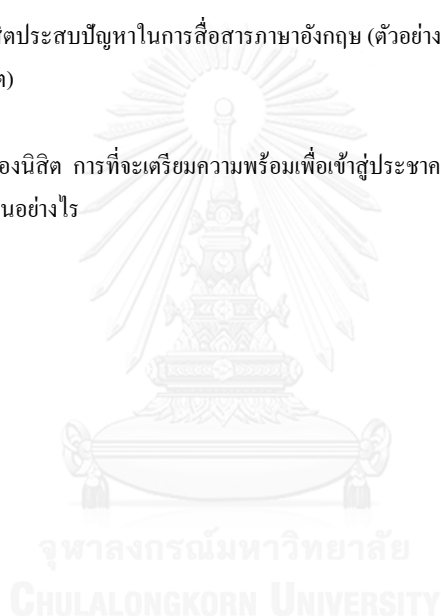
__Appendix B__

แบบสอบถามสำหรับอาจารย์

การศึกษาการเตรียมความพร้อมด้านภาษาอังกฤษสำหรับนิสิตคณะสถาปัตยกรรมศาสตร์เพื่อการเข้าสู่ประชาคมเศรษฐกิจอาเซียน

__ส่วนที่ 1__ ข้อมูลทั่วไป

__คำสั่ง__ : กรุณาทำเครื่องหมาย ✔ ในช่องสี่เหลี่ยม ☐ และเขียนคำตอบลงในช่องว่าง

1. เพศ ☐ หญิง ☐ ชาย

2. อายุ ☐ ต่ำกว่า 25 ☐ 25-30

 ☐ 31-35 ☐ มากกว่า 35

3. การศึกษา

 ☐ ปริญญาตรี ☐ ปริญญาโท

 ☐ ปริญญาเอก ☐ อื่นๆ โปรดระบุ

4. ตำแหน่งงานปัจจุบันของท่าน_____

5. ท่านสอนในคณะสถาปัตยกรรมศาสตร์เป็นระยะเวลากี่ปี

 ☐ 6-10 ☐ 11-15

 ☐ มากกว่า 15

6. กรุณาประเมินระดับความสามารถของนิสิตคณะสถาปัตยกรรมศาสตร์ในการใช้ภาษาอังกฤษโดยรวม

 ☐ ดีเยี่ยม ☐ ดี

 ☐ พอใช้ ☐ ต้องปรับปรุง

 6.1 ทักษะภาษาอังกฤษด้านใดที่นิสิตของท่านมีความถนัดมากที่สุด

 ☐ ฟัง ☐ พูด

 ☐ อ่าน ☐ เขียน

 6.2 ทักษะภาษาอังกฤษด้านใดที่นิสิตของท่านมีความถนัดน้อยที่สุด

 ☐ ฟัง ☐ พูด

 ☐ อ่าน ☐ เขียน

7. ท่านเคยศึกษาต่อต่างประเทศหรือเคยทำงานต่างประเทศมาก่อนหรือไม่

 ☐ เคย ประเทศ_____ ☐ ไม่เคย

__ส่วนที่ 2__ การรับรู้ของนิสิตคณะสถาปัตยกรรมศาสตร์เกี่ยวกับประชาคมเศรษฐกิจอาเซียน

__คำแนะนำ__ กรุณาทำเครื่องหมาย ✔ ลงในช่องว่างให้ถูกต้อง

4 = เห็นด้วยอย่างยิ่ง

3 = เห็นด้วย

2 = ไม่เห็นด้วย

1 = ไม่เห็นด้วยอย่างยิ่ง

การเตรียมความพร้อมเพื่อเข้าสู่ประชาคมเศรษฐกิจอาเซียน	ระดับที่ประเมิน			
	4	3	2	1
ท่านคิดว่า.......				
1. นิสิตรู้จัก "อาเซียน (ASEAN)"				
2. นิสิตรู้จักความร่วมมือทางเศรษฐกิจภายใต้กรอบ "ประชาคมเศรษฐกิจอาเซียน (ASEAN Economic Community: AEC)"				
3. นิสิตทราบถึงการเปิดเสรีวิชาชีพสถาปนิกซึ่งทำให้มีการเคลื่อนย้ายแรงงานในอาเซียนในปี 2015				
4. นิสิตทราบถึงการอำนวยความสะดวกในการเคลื่อนย้ายสถาปนิกในอาเซียนในรูปของการจัดทำความตกลงยอมรับร่วม(Mutual Recognition Arrangements: MRAs) โดยสถาปนิกที่มีคุณสมบัติตามที่กำหนดสามารถจดทะเบียนเป็นสถาปนิกวิชาชีพอาเซียน (ASEAN Chartered Professional Architect)				
5. นิสิตได้มีการเตรียมตัวเพื่อรับกับการเปิดเสรีวิชาชีพบริการทางสถาปนิก				
6. นิสิตคิดว่าการปรับตัวให้เข้ากับผู้ร่วมงานที่มีความหลากหลายทางเชื้อชาติ ภาษา และวัฒนธรรมเป็นสิ่งจำเป็น				
7. เมื่อนิสิตได้รับความรู้เกี่ยวกับการขยายตัวของตลาดแรงงาน นิสิตเห็นเป็นหน้าที่ของนิสิตที่จะต้องเพิ่มพูนความรู้ ความสามารถให้แก่ตนเองมากขึ้น เพื่อเป็นตัวเลือกที่ดีของตลาดแรงงาน				
8. นิสิตมีความสามารถในการสื่อสารภาษาอังกฤษดีและพร้อมจะแข่งขันในตลาดแรงงานระดับอาเซียน				
9. ความรู้ภาษาอังกฤษที่นิสิตได้รับจากการศึกษาในคณะสถาปัตยกรรมศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย สามารถตอบสนองความต้องการของนิสิตเพื่อแข่งขันในตลาดแรงงานอาเซียนได้				
10. นิสิตจำเป็นต้องพัฒนาทักษะการสื่อสารภาษาอังกฤษมากขึ้น				

ส่วนที่3 **ความต้องการด้านภาษาอังกฤษของนิสิตคณะสถาปัตยกรรมศาสตร์ในมุมมองของอาจารย์**

คำสั่ง: กรุณาทำเครื่องหมาย ✓ เพื่อแสดงความต้องการด้านภาษาอังกฤษที่นิสิตคณะสถาปัตยกรรมศาสตร์ควรจะมีความเชี่ยวชาญ

4 = มากที่สุด

3 = มาก

2 = น้อย

1 = น้อยมากๆ

ความต้องการด้านภาษาอังกฤษของนิสิตคณะสถาปัตยกรรมศาสตร์	ระดับที่ประเมิน			
	4	3	2	1
1. โครงสร้างทางภาษา (Language Structures)				
1.1 คำใส้ศัพท์เฉพาะที่ใช้ในเนื้อหาด้านสถาปัตยกรรมศาสตร์ (Technical terms used in architecture texts)				
1.2 คำศัพท์ทั่วไปที่ใช้ในเนื้อหาด้านสถาปัตยกรรมศาสตร์ (General terms used architecture texts)				
1.3 คำศัพท์เฉพาะที่ใช้ในขอบเขตความเชี่ยวชาญ (Technical terms in your area of specialization)				
1.4 โครงสร้างคำ เช่น คำผสม, การนำเอาคำอุปสรรคมาเติมเข้าข้างหน้ารากศัพท์ หรือคำปัจจัยมาเติมข้างหลังรากศัพท์,การสร้างคำนาม (Word structures, e.g., compounding, affixation, nominalization, etc.)				
1.5 โครงสร้างไวยากรณ์ที่ใช้บ่อยในการสนทนาหรือบรรยายทางวิทยาศาสตร์ เช่น present participles, passives, conditionals (Grammatical structures frequently used in scientific discourse e.g., present participles, passives, conditionals, etc.)				
1.6 โครงสร้างไวยากรณ์ที่ใช้ในการสื่อสารทั่วไป เช่น tenses, aspects, modality (Grammatical structures for general communications e.g., tenses, aspects, modality, etc.)				
1.7 การบอกขอบเขตความสัมพันธ์ของประโยคโดยใช้เครื่องหมายวรรคตอน เช่น comma, colon, semicolon, dash (Signaling syntactic boundaries using punctuation marks e.g., comma, colon, semicolon, dash, etc.)				

ความต้องการด้านภาษาอังกฤษของนิสิตคณะสถาปัตยกรรมศาสตร์	ระดับที่ประเมิน			
	4	3	2	1
2. **หมวดการใช้ถ้อยคำ (Rhetorical Categories)**				
2.1 คำเชื่อมที่ใช้เชื่อมความในวลีและประโยค เช่น therefore hence consequently as a result (Logical connectors used to link clauses and sentences e.g., therefore, hence, consequently, as a result, etc.)				
2.2 การแบ่งหมวดหมู่ โดยใช้คำเช่น consist of, is divided into, is composed of (Classification (e.g., consist of, is divided into, is composed of, etc.)				
2.3 คำอธิบายความหมาย เช่น is known as, is called (Definition e.g., is known as, is called, mean, etc.)				
2.4 การยกตัวอย่าง โดยใช้คำ เช่น such as, like, e.g., for instance (Exemplification e.g., such as, like, e.g., for instance, etc.)				
2.5 การกล่าวอย่างกว้างๆ โดยใช้คำเช่น in other words, in short, in conclusion (Generalization e.g., in other words, in short, in conclusion, etc.)				
2.6 การเรียงลำดับตามความสำคัญ โดยใช้คำเช่น at first, then, next, afterwards, ultimately (Chronological sequence e.g., at first, then, next, afterwards, ultimately, etc.)				
3. **หน้าที่ของภาษา (Language Functions)**				
3.1 การบรรยายขั้นตอนและกระบวนการ (Describing processes and procedures)				
3.2 การให้คำแนะนำและออกคำสั่ง (Giving instructions or directions)				
3.3 การรายงานข้อมูลจากแหล่งข้อมูล (Reporting information from other sources)				
3.4 การบรรยายวัตถุในทางเปรียบเทียบให้เห็นความแตกต่างในหลายๆมิติ เช่น ปริมาตรความจุ ความหนา ความสูง ความเร็ว และรูปร่าง (Describing an object in terms of contrast and comparison in dimensions e.g., volume, thickness, height, speed, shape, etc.)				
3.5 การสรุปผลโครงงานกลุ่ม รายงานทางเทคนิค หรือ เนื้อหาทางสถาปัตยกรรมศาสตร์ (Summarizing the results of a group project, a technical report, in architecture text)				
3.6 การใช้ตาราง แผนภาพ และกราฟ เพื่อสรุปข้อมูล (Using tables, diagrams and graphs to summarize data)				

ความต้องการด้านภาษาอังกฤษของนิสิตคณะสถาปัตยกรรมศาสตร์	ระดับที่ประเมิน			
	4	3	2	1
3.7 เข้าใจและแสดงให้เห็นจำนวนต่างๆ เช่น เศษส่วน ทศนิยม เวลา และสมการ (Understanding and verbalizing numbers e.g., fractions, decimals, time, equations, etc.)				
3.8 เข้าใจและแสดงให้เห็นสัญลักษณ์ทั่วไป เช่น การบวก หาร รากที่สอง (Understanding and verbalizing common symbols e.g., addition, division, square root, x squared, etc.)				
3.9 การสร้างโครงร่างเพื่อการนำเสนอผลงาน รายงานหรือโครงงาน Making an outline for a presentation, report or project				
4. ทักษะภาษา (Language Skills)				
Listening				
4.1 เข้าใจบทสนทนาที่ใช้ในชีวิตประจำวัน (Understanding everyday conversation (e.g., face-to-face conversation)				
4.2 เข้าใจบทสนทนาด้านธุรกิจผ่านทางโทรศัพท์ (Understanding business telephone conversation)				
4.3 เข้าใจในสิ่งที่ลูกค้าต้องการ (Understanding what clients want)				
4.4 เข้าใจบทสนทนาภาษาพูดในหัวข้อทางสถาปัตยกรรมศาสตร์ (Comprehending spoken discourse on architecture topics)				
4.5 เข้าใจการพูดออกคำสั่ง (Listening to verbal instructions)				
4.6 สามารถฟังการนำเสนอผลงาน การอภิปราย การสัมมนาและการประชุม (Listening to presentations, discussions, seminar, and conference)				
4.7 การฟังข่าวสารที่เกี่ยวข้องกับสายงานด้านสถาปัตยกรรมศาสตร์ (Listening to news related to the field of architecture)				
Speaking				
4.8 สามารถสนทนาแบบตัวต่อตัว (Conducting face-to-face conversation)				
4.9 สามารถสนทนาธุรกิจผ่านทางโทรศัพท์ (Conducting business telephone conversation)				
4.10 สามารถถามและตอบคำถามระหว่างการอภิปรายเป็นกลุ่มได้ (Asking and answering questions during the group discussions)				
4.11 สามารถนำเสนอความคิด โครงงานและรายงานทางเทคนิคได้ Presenting ideas, a project, and a technical report				

ความต้องการด้านภาษาอังกฤษของนิสิตคณะสถาปัตยกรรมศาสตร์	ระดับที่ประเมิน			
	4	3	2	1
4.12 สามารถแสดงความเห็นในหัวข้อที่แตกต่างกันได้ เช่น การเห็นด้วย ไม่เห็น ด้วย การโน้มน้าว การแนะนำ (Expressing opinions about different topics e.g., agreeing or disagreeing, persuading, suggesting, etc.)				
4.13 สามารถอธิบายแผนงาน กระบวนการก่อสร้าง คำสั่งและแนะนำวิธีการ ปฏิบัติงาน (Explaining work plan, construction process, directions and instruction of how to perform a job)				
4.14 สามารถร้องขอข้อมูลเพิ่มเติมหรือการให้ความเห็นชอบ (Making requests (i.e. for further information or confirmation)				
Reading				
4.15 เข้าใจเนื้อหาทางด้านสถาปัตยกรรมศาสตร์ (Understanding scientific and architecture texts in various fields for Comprehension)				
4.16 สามารถอ่านกฎความปลอดภัย ป้ายประกาศ และป้ายเตือน (Reading safety rules, notices, and warning signs)				
4.17 สามารถอ่านคำสั่งในสายงานสถาปัตยกรรมศาสตร์ (Reading instructions in the areas of architecture)				
4.18 สามารถอ่านรายงานทางเทคนิค รายงานการประชุมในสายงาน สถาปัตยกรรมศาสตร์ (Reading technical report and minutes of a meeting in the field of architecture)				
4.19 สามารถอ่านจดหมายธุรกิจ อีเมล์ บันทึกข้อความได้ (Reading business correspondence (e.g., business letters, e-mails, memorandums)				
4.20 สามารถอ่านข้อมูลเกี่ยวกับขั้นตอนการก่อสร้างทั้งหมด สัญญาการก่อสร้าง และงบประมาณโครงการ (Reading information about the entire construction process, construction contractors, and the budget of a project)				
4.21 สามารถอ่านบทความจากหนังสือพิมพ์และวารสารทางวิชาการที่เกี่ยวข้อง กับสายงานด้านสถาปัตยกรรมศาสตร์ได้ (Reading articles from news and journals related to the field of architecture)				

ความต้องการด้านภาษาอังกฤษของนิสิตคณะสถาปัตยกรรมศาสตร์	ระดับที่ประเมิน			
	4	3	2	1
Writing				
4.22 เขียนรายงานทางเทคนิคและสรุปโครงงานได้ (Writing a technical report or a project summary)				
4.23 เขียนจดหมายธุรกิจ อีเมล์ และบันทึกข้อความได้ (Writing business correspondence e.g., business letters, e- mails, and memorandums)				
4.24 เขียนประวัติย่อ (Writing a résumé)				
4.25 กรอกข้อมูลต่างๆ (Filling in forms)				
4.26 เขียนบทความเพื่อตีพิมพ์ (Writing publishable articles)				
4.27 เขียนอ้างอิงและบรรณานุกรม (Writing references and bibliography)				
4.28 เขียนคำบรรยายแผนภาพ ตารางและกราฟ (Writing captions to describe diagrams, tables, and graphs)				
4.29 เขียนคำบรรยายสถานที่ การออกแบบห้อง เฟอร์นิเจอร์ สวน และแผนผัง ชั้น และอื่นๆ (Writing description about the location and design of room, furniture, garden, floor plan, etc.)				

<u>**ส่วนที่4**</u>   **ข้อเสนอแนะและความคาดหวังต่อวิชาภาษาอังกฤษสำหรับสถาปนิก**

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บทสัมภาษณ์สำหรับอาจารย์

1. ในความเห็นส่วนตัวของท่าน ความร่วมมือทางเศรษฐกิจภายใต้กรอบ "ประชาคมเศรษฐกิจอาเซียน (ASEAN Economic Community: AEC)" จะมีผลกระทบต่อตัวนิสิตหรือไม่ อย่างไร

2. เมื่อเข้าสู่ประชาคมเศรษฐกิจอาเซียน ภาษาอังกฤษจะถูกใช้เป็นภาษากลางในการติดต่อสื่อสารในอาเซียน ท่านคิดว่า ความรู้ภาษาอังกฤษที่นิสิตได้รับจากการศึกษาในสถาบันการศึกษาสามารถตอบสนองความต้องการของตลาดแรงงาน อาเซียนได้หรือไม่ อย่างไรโปรดอธิบาย

3. ปัจจัยใดที่ส่งผลให้นิสิตประสบปัญหาในการสื่อสารภาษาอังกฤษ (ตัวอย่างเช่น ฝึกฟังน้อย การเรียนการสอนไม่ตรงตาม ความต้องการของนิสิต)

4. ในความเห็นส่วนตัวของนิสิต การที่จะเตรียมความพร้อมเพื่อเข้าสู่ประชาคมเศรษฐกิจอาเซียน การจัดการเรียนการสอน ภาษาอังกฤษควรจะเป็นอย่างไร

5. ในความเห็นส่วนตัวของท่าน การที่จะเตรียมความพร้อมเพื่อเข้าสู่ประชาคมเศรษฐกิจอาเซียนนั้น ใครควรจะมีบทบาท สำคัญในด้านนี้

6. ในความเห็นส่วนตัวของท่าน ผู้ประกอบวิชาชีพสถาปนิกในอุดมคติที่พร้อมสำหรับแข่งขันในตลาดแรงงานอาเซียนควร จะมีลักษณะอย่างไร

Appendix C

แบบสอบถามสำหรับสถาปนิก

การศึกษาการเตรียมความพร้อมด้านภาษาอังกฤษสำหรับนิสิตคณะสถาปัตยกรรมศาสตร์เพื่อการเข้าสู่ประชาคมเศรษฐกิจอาเซียน

ตอนที่ 1 ข้อมูลทั่วไป

คำสั่ง : กรุณาทำเครื่องหมาย ✓ ในช่องสี่เหลี่ยม ☐ และเขียนคำตอบลงในช่องว่าง

1. เพศ   ☐ หญิง   ☐ ชาย

2. อายุ   ☐ ต่ำกว่า 25   ☐ 25-30

     ☐ 31-35   ☐ มากกว่า35

3. การศึกษา

     ☐ ปริญญาตรี   ☐ ปริญญาโท

     ☐ ปริญญาเอก   ☐ อื่นๆ โปรดระบุ

4. ตำแหน่งงานปัจจุบันของท่าน

     ☐ ภาคีสถาปนิกพิเศษ

     ☐ ภาคีสถาปนิก

     ☐ สามัญสถาปนิก

     ☐ วุฒิสถาปนิก

     ท่านทำงานในสายงานนี้เป็นระยะเวลากี่ปี

     ☐ 1-5 ปี   ☐ 6-10 ปี

     ☐ 11-15 ปี   ☐ มากกว่า15 ปี

5. ท่านเรียนภาษาอังกฤษเป็นระยะเวลากี่ปี

     ☐ 6-10 ปี   ☐ 11-15 ปี

     ☐ มากกว่า15 ปี

6. ท่านเคยศึกษาต่อต่างประเทศหรือเคยทำงานต่างประเทศมาก่อนหรือไม่

     ☐ เคย ประเทศ_____   ☐ ไม่เคย

7. ท่านใช้ภาษาอังกฤษในการทำงานบ่อยแค่ไหน

     ☐ เป็นประจำทุกวัน

     ☐ บ่อยๆ

     ☐ บางครั้ง

     ☐ แทบจะไม่ได้ใช้

8. ท่านใช้ภาษาอังกฤษในที่ทำงานกับผู้ใดบ้าง เลือกตอบได้มากกว่าหนึ่งคำตอบ

     ☐ ลูกค้าชาวต่างชาติ

     ☐ เจ้านาย

     ☐ เพื่อนร่วมงาน

     ☐ อื่นๆ โปรดระบุ

9. ทักษะภาษาอังกฤษด้านใดที่ท่านใช้ในการทำงานมากที่สุด โปรดเรียงตามลำดับความสำคัญ 1= ใช้มากที่สุด และ 6= ใช้น้อยที่สุด

☐ ฟัง

☐ พูด

☐ อ่าน

☐ เขียน

☐ ศัพท์ทั่วไปและศัพท์เฉพาะ

☐ ไวยากรณ์

10. กรุณาประเมินระดับความสามารถในการใช้ภาษาอังกฤษโดยรวมของท่าน

☐ ดีเยี่ยม

☐ ดี

☐ พอใช้

☐ ต้องปรับปรุง

10.1 ทักษะภาษาอังกฤษด้านใดที่ท่านมีความสามารถมากที่สุด

☐ ฟัง

☐ พูด

☐ อ่าน

☐ เขียน

10.2 ทักษะภาษาอังกฤษด้านใดที่ท่านมีความถนัดน้อยที่สุด

☐ ฟัง

☐ พูด

☐ อ่าน

☐ เขียน

<u>ส่วนที่ 2</u> การรับรู้เกี่ยวกับประชาคมเศรษฐกิจอาเซียนที่เกี่ยวข้องกับสายงานด้านสถาปัตยกรรมศาสตร์

คำสั่ง: กรุณาทำเครื่องหมาย ✓ ลงในช่องว่างให้ถูกต้อง

4 = เห็นด้วยอย่างยิ่ง

3 = เห็นด้วย

2 = ไม่เห็นด้วย

1 = ไม่เห็นด้วยอย่างยิ่ง

การเตรียมความพร้อมเพื่อเข้าสู่ประชาคมเศรษฐกิจอาเซียน	ระดับที่ประเมิน			
	4	**3**	**2**	**1**
1. ท่านรู้จัก "อาเซียน (ASEAN)"				
2. ท่านรู้จักความร่วมมือทางเศรษฐกิจภายใต้กรอบ "ประชาคมเศรษฐกิจอาเซียน (ASEAN Economic Community: AEC)"				
3. ท่านทราบถึงการเปิดเสรีวิชาชีพสถาปนิกซึ่งทำให้มีการเคลื่อนย้ายแรงงานในอาเซียนในปี 2015				
4. ท่านทราบถึงการอำนวยความสะดวกในการเคลื่อนย้ายสถาปนิกในอาเซียนในรูปของการจัดทำความตกลงยอมรับร่วม(Mutual Recognition Arrangements: MRAs) โดยสถาปนิกที่มีคุณสมบัติตามที่กำหนดสามารถจดทะเบียนเป็นสถาปนิกวิชาชีพอาเซียน (ASEAN Chartered Professional Architect)				
5. ท่านได้มีการเตรียมตัวเพื่อรับกับการเปิดเสรีวิชาชีพบริการทางสถาปนิก				
6. ท่านคิดว่าการปรับตัวให้เข้ากับผู้ร่วมงานที่มีความหลากหลายทางเชื้อชาติ ภาษา และวัฒนธรรมเป็นสิ่งจำเป็น				
7. เมื่อท่านได้รับความรู้เกี่ยวกับการขยายตัวของตลาดแรงงาน นิสิตเห็นเป็นหน้าที่ของนิสิตที่จะต้องเพิ่มพูนความรู้ ความสามารถให้แก่ตนเองมากขึ้น เพื่อเป็นตัวเลือกที่ดีของตลาดแรงงาน				
8. ท่านมีความสามารถในการสื่อสารภาษาอังกฤษดีและพร้อมจะแข่งขันในตลาดแรงงานระดับอาเซียน				
9. ความรู้ภาษาอังกฤษที่ท่านได้รับจากการศึกษาในคณะสถาปัตยกรรมศาสตร์ สามารถตอบสนองความต้องการของท่านเพื่อแข่งขันในตลาดแรงงานอาเซียนได้				
10. ท่านจำเป็นต้องพัฒนาทักษะการสื่อสารภาษาอังกฤษมากขึ้น				

<u>ส่วนที่ 3</u> **ความต้องการด้านภาษาอังกฤษของผู้ประกอบวิชาชีพสถาปนิก**

คำสั่ง: กรุณาทำเครื่องหมาย ✔ เพื่อแสดงความต้องการด้านภาษาอังกฤษของท่านในตารางข้างล่าง

4 = มากที่สุด

3 = มาก

2 = น้อย

1 = น้อยมากๆ

ความต้องการด้านภาษาอังกฤษของสถาปนิก	ระดับที่ประเมิน			
	4	**3**	**2**	**1**
1. โครงสร้างทางภาษา (Language Structures)				
1.1 คำศัพท์เฉพาะที่ใช้ในเนื้อหาด้านสถาปัตยกรรมศาสตร์ (Technical terms used in architecture texts)				
1.2 คำศัพท์ทั่วไปที่ใช้ในเนื้อหาด้านสถาปัตยกรรมศาสตร์ (General terms used architecture texts)				
1.3 คำศัพท์เฉพาะที่ใช้ในขอบเขตความเชี่ยวชาญ (Technical terms in your area of specialization)				
1.4 โครงสร้างคำ เช่น คำผสม, การนำเอาคำอุปสรรคมาเติมเข้าข้างหน้ารากศัพท์ หรือคำปัจจัยมาเติมข้างหลังรากศัพท์,การสร้างคำนาม (Word structures, e.g., compounding, affixation, nominalization, etc.)				
1.5 โครงสร้างไวยากรณ์ที่ใช้บ่อยในการสนทนาหรือบรรยายทางวิทยาศาสตร์ เช่น present participles, passives, conditionals (Grammatical structures frequently used in scientific discourse e.g., present participles, passives, conditionals, etc.)				
1.6 โครงสร้างไวยากรณ์ที่ใช้ในการสื่อสารทั่วไป เช่น tenses, aspects, modality (Grammatical structures for general communications e.g., tenses, aspects, modality, etc.)				
1.7 การบอกขอบเขตความสัมพันธ์ของประโยคโดยใช้เครื่องหมายวรรคตอน เช่น comma, colon, semicolon, dash (Signaling syntactic boundaries using punctuation marks e.g., comma, colon, semicolon, dash, etc.)				

ความต้องการด้านภาษาอังกฤษของสถาปนิก	ระดับที่ประเมิน			
	4	**3**	**2**	**1**
2. **หมวดการใช้ถ้อยคำ (Rhetorical Categories)**				
2.1 คำเชื่อมที่ใช้เชื่อมความในวลีและประโยค เช่น therefore hence consequently as a result (Logical connectors used to link clauses and sentences e.g., therefore, hence, consequently, as a result, etc.)				
2.2 การแบ่งหมวดหมู่ โดยใช้คำเช่น consist of, is divided into, is composed of (Classification (e.g., consist of, is divided into, is composed of, etc.)				
2.3 คำอธิบายความหมาย เช่น is known as, is called (Definition e.g., is known as, is called, mean, etc.)				
2.4 การยกตัวอย่าง โดยใช้คำ เช่น such as, like, e.g., for instance (Exemplification e.g., such as, like, e.g., for instance, etc.)				
2.5 การกล่าวอย่างกว้างๆ โดยใช้คำเช่น in other words, in short, in conclusion (Generalization e.g., in other words, in short, in conclusion, etc.)				
2.6 การเรียงลำดับตามความสำคัญ โดยใช้คำเช่น at first, then, next, afterwards, ultimately (Chronological sequence e.g., at first, then, next, afterwards, ultimately, etc.)				
3. **หน้าที่ของภาษา (Language Functions)**				
3.1 การบรรยายขั้นตอนและกระบวนการ (Describing processes and procedures)				
3.2 การให้คำแนะนำและออกคำสั่ง (Giving instructions or directions)				
3.3 การรายงานข้อมูลจากแหล่งข้อมูล (Reporting information from other sources)				
3.4 การบรรยายวัตถุในทางเปรียบเทียบให้เห็นความแตกต่างในหลายๆมิติ เช่น ปริมาตรความจุ ความหนา ความสูง ความเร็ว และรูปร่าง (Describing an object in terms of contrast and comparison in dimensions e.g., volume, thickness, height, speed, shape, etc.)				
3.5 การสรุปผลโครงงานกลุ่ม รายงานทางเทคนิค หรือ เนื้อหาทางสถาปัตยกรรมศาสตร์ (Summarizing the results of a group project, a technical report, in architecture text)				
3.6 การใช้ตาราง แผนภาพ และกราฟ เพื่อสรุปข้อมูล (Using tables, diagrams and graphs to summarize data)				

ความต้องการด้านภาษาอังกฤษของสถาปนิก	ระดับที่ประเมิน			
	4	3	2	1
3.7 เข้าใจและแสดงให้เห็นจำนวนต่างๆ เช่น เศษส่วน ทศนิยม เวลา และสมการ (Understanding and verbalizing numbers e.g., fractions, decimals, time, equations, etc.)				
3.8 เข้าใจและแสดงให้เห็นสัญลักษณ์ทั่วไป เช่น การบวก หาร รากที่สอง (Understanding and verbalizing common symbols e.g., addition, division, square root, x squared, etc.)				
3.9 การสร้างโครงร่างเพื่อการนำเสนอผลงาน รายงานหรือโครงงาน Making an outline for a presentation, report or project				
4. **ทักษะภาษา (Language Skills)**				
Listening				
4.1 เข้าใจบทสนทนาที่ใช้ในชีวิตประจำวัน (Understanding everyday conversation (e.g., face-to-face conversation)				
4.2 เข้าใจบทสนทนาด้านธุรกิจผ่านทางโทรศัพท์ (Understanding business telephone conversation)				
4.3 เข้าใจในสิ่งที่ลูกค้าต้องการ (Understanding what clients want)				
4.4 เข้าใจบทสนทนาภาษาพูดในหัวข้อทางสถาปัตยกรรมศาสตร์ (Comprehending spoken discourse on architecture topics)				
4.5 เข้าใจการพูดออกคำสั่ง (Listening to verbal instructions)				
4.6 สามารถฟังการนำเสนอผลงาน การอภิปราย การสัมมนาและการประชุม (Listening to presentations, discussions, seminar, and conference)				
4.7 การฟังข่าวสารที่เกี่ยวข้องกับสายงานด้านสถาปัตยกรรมศาสตร์ (Listening to news related to the field of architecture)				
Speaking				
4.8 สามารถสนทนาแบบตัวต่อตัว (Conducting face-to-face conversation)				
4.9 สามารถสนทนาธุรกิจผ่านทางโทรศัพท์ (Conducting business telephone conversation)				
4.10 สามารถถามและตอบคำถามระหว่างการอภิปรายเป็นกลุ่มได้ (Asking and answering questions during the group discussions)				
4.11 สามารถนำเสนอความคิด โครงงานและรายงานทางเทคนิคได้ Presenting ideas, a project, and a technical report				

ความต้องการด้านภาษาอังกฤษของสถาปนิก	ระดับที่ประเมิน			
	4	3	2	1
4.12 สามารถแสดงความเห็นในหัวข้อที่แตกต่างกันได้ เช่น การเห็นด้วย ไม่เห็นด้วย การโน้มน้าว การแนะนำ (Expressing opinions about different topics e.g., agreeing or disagreeing, persuading, suggesting, etc.)				
4.13 สามารถอธิบายแผนงาน กระบวนการก่อสร้าง คำสั่งและแนะนำวิธีการปฏิบัติงาน (Explaining work plan, construction process, directions and instruction of how to perform a job)				
4.14 สามารถร้องขอข้อมูลเพิ่มเติมหรือการให้ความเห็นชอบ (Making requests (i.e. for further information or confirmation)				
Reading				
4.15 เข้าใจเนื้อหาทางด้านสถาปัตยกรรมศาสตร์ (Understanding scientific and architecture texts in various fields for Comprehension)				
4.16 สามารถอ่านกฎความปลอดภัย ป้ายประกาศ และป้ายเตือน (Reading safety rules, notices, and warning signs)				
4.17 สามารถอ่านคำสั่งในสายงานสถาปัตยกรรมศาสตร์ (Reading instructions in the areas of architecture)				
4.18 สามารถอ่านรายงานทางเทคนิค รายงานการประชุมในสายงานสถาปัตยกรรมศาสตร์ (Reading technical report and minutes of a meeting in the field of architecture)				
4.19 สามารถอ่านจดหมายธุรกิจ อีเมล์ บันทึกข้อความได้ (Reading business correspondence (e.g., business letters, e-mails, Memorandums)				
4.20 สามารถอ่านข้อมูลเกี่ยวกับขั้นตอนการก่อสร้างทั้งหมด สัญญาการก่อสร้าง และงบประมาณโครงการ (Reading information about the entire construction process, construction contractors, and the budget of a project)				
4.21 สามารถอ่านบทความจากหนังสือพิมพ์และวารสารทางวิชาการที่เกี่ยวข้องกับสายงานด้านสถาปัตยกรรมศาสตร์ได้ (Reading articles from news and journals related to the field of architecture)				

ความต้องการด้านภาษาอังกฤษของสถาปนิก	ระดับที่ประเมิน			
	4	3	2	1
Writing				
4.22 เขียนรายงานทางเทคนิคและสรุปโครงงานได้ (Writing a technical report or a project summary)				
4.23 เขียนจดหมายธุรกิจ อีเมล์ และบันทึกข้อความได้ (Writing business correspondence e.g., business letters, e- mails, and memorandums)				
4.24 เขียนประวัติย่อ (Writing a résumé)				
4.25 กรอกข้อมูลต่างๆ (Filling in forms)				
4.26 เขียนบทความเพื่อตีพิมพ์ (Writing publishable articles)				
4.27 เขียนอ้างอิงและบรรณานุกรม (Writing references and bibliography)				
4.28 เขียนคำบรรยายแผนภาพ ตารางและกราฟ (Writing captions to describe diagrams, tables, and graphs)				
4.29 เขียนคำบรรยายสถานที่ การออกแบบห้อง เฟอร์นิเจอร์ สวน และแผนผัง ชั้น และอื่นๆ (Writing description about the location and design of room, furniture, garden, floor plan, etc.)				

<u>ส่วนที่4</u>   ข้อเสนอแนะและความคาดหวังต่อวิชาภาษาอังกฤษสำหรับสถาปนิก

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บทสัมภาษณ์สำหรับสถาปนิก

1. ในความเห็นส่วนตัวของท่าน ความร่วมมือทางเศรษฐกิจภายใต้กรอบ "ประชาคมเศรษฐกิจอาเซียน (ASEAN Economic Community: AEC)" จะมีผลกระทบต่อตัวนิสิตหรือไม่ อย่างไร

2. เมื่อเข้าสู่ประชาคมเศรษฐกิจอาเซียน ภาษาอังกฤษจะถูกใช้เป็นภาษากลางในการติดต่อสื่อสารในอาเซียน ท่านคิดว่าความรู้ภาษาอังกฤษที่นิสิตได้รับจากการศึกษาในสถาบันการศึกษาสามารถตอบสนองความต้องการของตลาดแรงงานอาเซียนได้หรือไม่อย่างไรโปรดอธิบาย

2. ปัจจัยใดที่ส่งผลให้นิสิตประสบปัญหาในการสื่อสารภาษาอังกฤษ (ตัวอย่างเช่น ฝึกฟังน้อย การเรียนการสอนไม่ตรงตามความต้องการของนิสิต)

3. ในความเห็นส่วนตัวของนิสิต การที่จะเตรียมความพร้อมเพื่อเข้าสู่ประชาคมเศรษฐกิจอาเซียน การจัดการเรียนการสอนภาษาอังกฤษควรจะเป็นอย่างไร

4. ในความเห็นส่วนตัวของท่าน การที่จะเตรียมความพร้อมเพื่อเข้าสู่ประชาคมเศรษฐกิจอาเซียนนั้น ใครควรจะมีบทบาทสำคัญในด้านนี้

5. ในความเห็นส่วนตัวของท่าน ผู้ประกอบวิชาชีพสถาปนิกในอุดมคติที่พร้อมสำหรับแข่งขันในตลาดแรงงานอาเซียนควรจะมีลักษณะอย่างไร
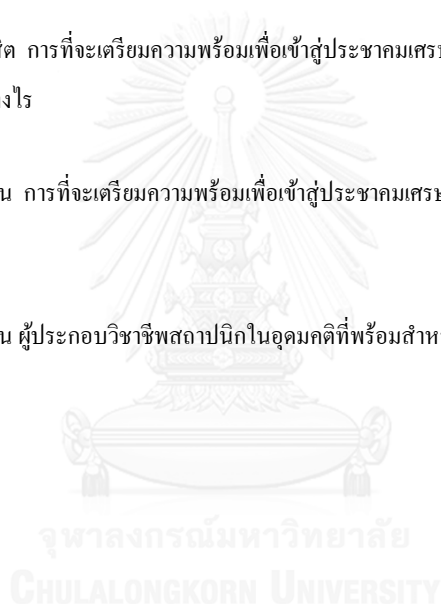
Appendix D

Course syllabus for undergraduate students in the Faculty of Architecture in

English for Specific Purposes (ESP) program based on a content-based syllabus

I.   **Rationale**

This course is designed for English for Specific Purposes (ESP) program based on a content-based syllabus and is designed especially for undergraduate students in the Faculty of Architecture. The intra-regional economic cooperation under the AEC has the impact on the free flow of architectural services in 2015 and makes undergraduate students realize that they need to improve their knowledge in area of study, working skills and especially, English language proficiency in order to be needed in ASEAN job market. Additionally, according to this study, undergraduate students felt that they did not have high level of English proficiency to compete with others in ASEAN. As undergraduate students are English as Foreign Language (EFL) learners, they do not need to use English in their daily basis. They will use English in a particular situation such as in English classroom and in workplace because of career needs. Therefore, ESP program based on a content-based syllabus would step in to serve their needs of both content areas of study and English language skills.

II.   **Theoretical Framework**

        English for Specific Purposes (ESP) Approach

English for Specific Purposes (ESP) approach refers to an English teaching approach in the field of L2 learning and teaching that aims to serve a group of people

with specific needs such as for academic, professional, or personal issues. ESP learners are likely to master general English and still need it for using in their jobs. The emphasis of teaching content and method varies in accordance with each field of interest. The subject content should direct language learning and the language studies should meet the specific needs of students in their field of study and work.

ESP has now accepted the implementation of various approaches, material types, and methodologies. In order to create a syllabus design, linguistic characteristics of different disciplines such as registers and genres need to be integrated into language teaching. Besides, Richards and Rodgers (2001) point out that student's specific needs and expectations are the fundamental principle for course designs. It seems that ESP would be suitable for responding to the academic and professional demands of the students of various fields in different countries around the world.

Content-based Approach

Richard and Rodgers (2001) offer the definition of content-based instruction as teaching approach that concentrates on language and the content which means the target language is learned and taught through the context of the content. According to Brinton, Snow, & Wesche (1989, 2003), there are three types of CBI, namely theme-based language instruction, sheltered content instruction, and adjunct instruction.

Theme-based language instruction is a teaching approach in which the course organization is arranged in specific themes or topics (Brinton, Snow, & Wesche, 2003). **Sheltered content instruction** is a teaching approach which is placed emphasis on the content rather than the target language. The language simplification is used for serving the level of students' language proficiency. **Adjunct instruction**

refers to the language teaching that is equally emphasized on the target language as well as the subject matter.

CBI proves that it is beneficial for teachers to see the progress of students' language competence. Moreover, this teaching approach helps students to get exposure to the real content, such as Geography or History, not just the language forms.

A content-based syllabus or a topical syllabus is improved according to the principles of ESP. This type of syllabus has the primary objective to teach subject matter content using the target language that students are learning at the same time. The content is the main focus and the target language occurs simultaneously to the content learning. The content in this case provides a rich context for the language classroom, allows the teacher to present and explain specific language features, and contributes the comprehensible input, the foundation for successful language acquisition of the students.

III. Course Descriptions

The target group

The target group is Thai undergraduate students in the Faculty of Architecture. Their English proficiency level is at intermediate. They are required to take two fundamental courses before they enroll in this program in order to prove that they reach proper proficiency levels.

In terms of content knowledge, students who take this program have professional subject knowledge of architecture. In terms of language proficiency, they have reached an intermediate level which the program starts. By the end of the

program, their level of language proficiency would be expected to reach upper intermediate.

Since the program is content-based syllabus and undergraduate students have reached an intermediate level of proficiency, during the program, all four skills: reading, listening, speaking, and writing would be practiced while understanding content, discussing problems, and completing tasks. The articles for reading would be related to the current situation of ASEAN architecture which vocabulary would be learned.

IV.   Course Objectives

By the end of the course, the undergraduate students in the Faculty of Architecture will be able to:

1. comprehend an information of South East Asia Art and Architecture,

2. give a project presentation on a building design reflected the influence of ASEAN styles, and

3. improve English language integrated skills used for specific purposes in the field of Architecture.
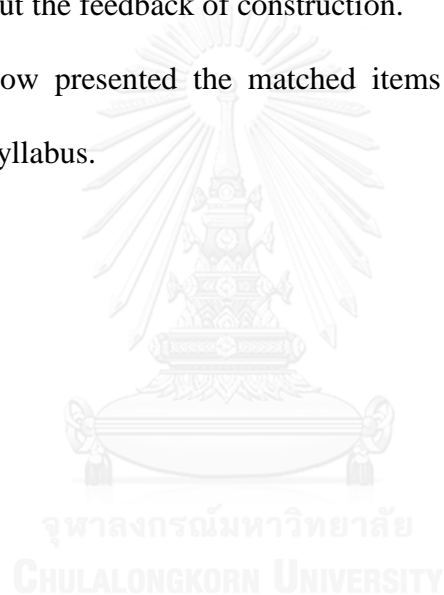
V.   Course Contents

The course contents of this syllabus design were derived from the investigation of English- language needs of Thai undergraduate students in the Faculty of Architecture in response to the AEC. This investigation was conducted across three groups of participants namely, undergraduate students, instructors, and stakeholders. The highest ranking items of participants' perceived needs in each four

major areas: language structures, rhetorical categories, language functions, and language skills were selected to be the content of this course.

The main topic of the program is "Southeast Asia art and architecture". Subtopics are step-by-step procedure of designing a modern building. Starting from analyzing current situations of Southeast Asia art and architecture, the program move on to set up objectives for designing a new form of Asian architecture, investigating the target of clients, and designing pricing and construction plan. The final step is to prepare measures about the feedback of construction.

The table below presented the matched items which were grouped as the content for a course syllabus.

English language components	Perceived-needs of participants			Course contents that matched all participants' needs
	Undergraduate students	Instructors	Stakeholders	
Language structures	General terms used in architecture texts	General terms used in architecture texts	Technical terms used in architecture texts Technical terms used in area of specialization	- General terms used in architecture texts - Technical terms used in architecture texts and in area of specialization
Rhetorical categories	Exemplification (e.g., such as, like, e.g., for instance, etc.)	Chronological sequence (e.g., at first, then, next, afterwards, etc.)	Exemplification (e.g., such as, like, e.g., for instance, etc.)	- Exemplification (e.g., such as, like, e.g., for instance, etc.) - Chronological sequence (e.g., at first, then, next, afterwards, etc.)
Language functions	Making an outline for a presentation, report or project	Making an outline for a presentation, report or project Using tables, diagrams and graphs to summarize data	Describing processes and procedures. Understanding and verbalizing numbers (e.g., fractions, decimals, time, equations, etc.) Understanding and verbalizing common symbols (e.g., addition, division, square root, x squared, etc.) Making an outline for a presentation, report or project	- Making an outline for a presentation, report or project - Describing processes and procedures. - Using tables, diagrams and graphs to summarize data - Understanding and verbalizing numbers (e.g., fractions, decimals, time, equations, etc.) and common symbols (e.g., addition, division, square root, x squared, etc.)

English language components	Perceived-needs of participants			Course contents that matched all participants' needs
	Undergraduate students	Instructors	Stakeholders	
Language skills				
Listening skill	Comprehending spoken discourse on architecture topics	Understanding what clients want

Listening to lecture, talk, presentations, discussions, seminar, and conference | Understanding everyday conversation (e.g., face-to-face conversation)

Understanding what clients want

Listening to verbal instructions | • Understanding everyday conversation
• Understanding what clients want
• Comprehending spoken discourse on architecture topics
• Listening to verbal Instructions, lecture, talk, presentations, discussions, seminar, and conference |
| **Speaking skill** | Conducting business telephone conversation

Expressing opinions about different topics (e.g., agreeing or disagreeing, persuading, suggesting, discussing etc.) | Explaining work plan, construction process, directions, and instruction of how to perform a job | Conducting face-to-face conversation | • Conducting face-to-face conversation and business telephone conversation
• Expressing opinions about different topics (e.g., agreeing or disagreeing, persuading, suggesting, discussing etc.)
• Explaining work plan, construction process, directions, and instruction of how to perform a job |

English language components	Perceived-needs of participants			Course contents that matched all participants' needs
	Undergraduate students	Instructors	Stakeholders	
Language skills				
Reading skills	Reading instructions in the areas of architecture	Understanding scientific and architecture texts in various fields for comprehension Reading instructions in the areas of architecture Reading business correspondence (e.g., business letters, e-mails, memorandums)	Reading safety rules, notices, and warning signs Reading instructions in the area of architecture	▪ Understanding scientific and architecture texts in various fields for comprehension ▪ Reading safety rules, notices, and warning signs ▪ Reading instructions in the areas of architecture ▪ Reading business correspondence (e.g., business letters, e- mails, memorandums)
Writing skills	Writing a resume	Writing a resume	Writing captions to describe diagrams, tables and graphs Writing description about the location and design of room, furniture, garden and floor plan	▪ Writing a resume ▪ Writing captions to describe diagrams, tables and graphs ▪ Writing description about the location and design of room, furniture, garden and floor plan

VI   **Materials**

The materials of this course include written texts, visual aids, and video clips.

VII   **Course Outline**

There is ten-week syllabus design for this course. The final two weeks are designed for project presentations; the other eight weeks cover eight different topics. The sequence of eight topics based on the sequence of designing a new construction.

Week 1: Introduction to the course, ASEAN architects and regulations under Mutual Recognition Arrangement on Architectural services, and new opportunity in ASEAN job market as a result from the AEC

    Content Objectives: Students will be able to:

        1. summarize the concepts of Architectural services in ASEAN,

        2. understand and realize the cooperation under the AEC, and

        3. realize the benefits of the AEC for ASEAN architects.

    Language Objectives: Students will be able to:

        1. read for comprehension,

        2. understand general terms used in architecture texts,

        3. express opinions about topics (e.g., agreeing or disagreeing, persuading, suggesting, discussing etc.), and

        4. listen for main ideas.

Suggested teaching materials:

*ASEAN Economic Community Blueprint*2008). *Characteristics and Elements*

of AEC Retrieved from http://www.aseansec.org/21083.pdf

Waldrep.W.L. (2014).*Becoming an Architect: A Guide to Careers in Design.*

Hoboken, New Jersy: John Wiley&Sons.Inc.

Video: "ASEAN Architects" available at

https://www.youtube.com/watch?v=Z8-o_Xc2NRw

Week 2: Southeast Asia Architecture

Content Objectives: Students will be able to:

1. summarize an overview of Southeast Asia Architecture,

2. develop concepts of Southeast Asia Architecture, and

3. comprehend the process of Southeast Asia architectural styles reflected from Asian cultures.

Language Objectives: Students will be able to:

1. listen for main ideas,

2. comprehend the general terms and technical terms used in architecture text,

3. answer comprehension questions,

4. make oral and written summary,

5. read article for comprehension,

6. answer comprehension questions, and

7. make an oral and written summary.

Suggested teaching materials:

Galindo,M. (2010). *Collection: Asian Architecture*. New York: Braun Publish.

Video: "South and Southeast Asian Art Video Presentation" available at https://www.youtube.com/watch?v=bq9amTj5M54 and "The influence of Hinduism and Buddhism on Religious Architecture in Southeast Asia" available at https://www.youtube.com/watch?v=QbG-yhJvNxY

Week 3: Architectural Design Criteria

Content Objectives: Students will be able to:

1. understand the concepts of architectural design and

2. understand the architectural disciplines and laws in accordance with different countries' styles.

Language Objectives: Students will be able to:

1. comprehend the terminology of architectural design,

2. practice the design techniques, like simulated conference meeting, discuss socio-cultural and geographical factors that influence the design elements,

3. listen to verbal instructions, lecture, talk, presentations, discussions, seminar, and conference, and

4. describe processes and procedures in the architectural design.

Suggested teaching materials:

Goldberger, P. (2011). *Why Architecture Matters.* Connecticut: Yale University Press.

PowerPoint presentation

Week 4: Modern Asian Architecture

Content Objectives: Students will be able to:

1. differentiate kinds of modern architectural designs and

2. realize Asian countries' blend of contemporary and cultures.

Language Objectives: Students will be able to:

1. comprehend spoken discourse on architecture topics,

2. read the article for gist,

3. write a comparison between contemporary design and modern design by using compare-and-contrast structure,

4. discuss the topics of interest by using exemplification (e.g., such as, like, e.g., for instance, etc.), and

5. present a synopsis of the visual using transitions and adverbial structure.

Suggested teaching materials:

Corbusier, L. (2014). *Towards a New Architecture.* New York: Dover Publications Inc.

Video: "The Future of Architecture and Design" available at

https://www.youtube.com/watch?v=NlAHWyqIWI

Week 5: Architectural Design in Southeast Asia over the next five years

Content Objectives: Students will be able to:

1. understand the global trend of moving towards more nature-inspired lines and forms.

Language Objectives: Students will be able to:

1. comprehend spoken discourse on architecture topics,

2. recognize structure of an article,

3. describe an object in terms of volume, thickness, height, and shape, and

4. express opinions about different topics such as agreeing or disagreeing, suggesting, etc.

Suggested teaching materials:

Corbusier, L. (2014). *Towards a New Architecture.* New York: Dover Publications Inc.

Video: "Trends and Innovations in Building and Construction Industry in the ASEAN by Mr. Chaovalit Ekabut" available at

https://www.youtube.com/watch?v=5Iat9vbwiKM

Week 6: Planning new design of building

Content Objectives: Students will be able to:

1. implement Asian architectural design as a guideline to create their own building and

2. learn how to establish and maintain a relationship with clients.

Language Objectives: Students will be able to:

1. describe process and procedure using chronological sequence e.g. first, then, next, afterwards,

2. make request for further information or confirmation,

3. read business correspondence and proposals,

4. conduct face-to-face conversation and business telephone conversation,

5. understand what clients want, and

6. write description about the location and design of the room, furniture, garden, floor plan.

Suggested teaching materials:

Center for Environmental Structure Series. (1977). *A Pattern Language: Towns, Buildings, Construction*. New York: Oxford University Press.

PowerPoint presentation

Week 7: How to manage a construction process

Content Objectives: Students will be able to:

1. write a business correspondence and proposals to the clients and

2. understand the structure and points of construction process.

Language Objectives: Students will be able to:

1. read and write business correspondence and proposals to the clients,

2. make outline for a presentation, report or project,

3. verbalize numbers (e.g., fractions, decimals, time, equations, etc.) and common symbols (e.g., addition, division, square root, x squared, etc.),

4. understand and explain work plan, construction process, directions, and instruction of how to perform a job,

5. write a resume for applying for a job, and

6. conduct face-to face conversation and business telephone conversation.

Suggested teaching materials:

Center for Environmental Structure Series. (1977). *A Pattern Language: Towns, Buildings, Construction*. New York: Oxford University Press.

Video: "Designing & Constructing Buildings for Higher Performance by Dr. Naveed Anwar" available at https://www.youtube.com/watch?v=xLo-J6_DiE8

Week 8 and 9: Final Project Presentation

During the final two week of the class, the students will be singularly busy creating their design of the building and preparing for giving a presentation. The final product will serve as a means for instructor to assess whether or not the course goals have been reached.

Content Objectives: Students will be able to:

1. integrate what the students have learned into use.

Language Objectives: Students will be able to:

1. present ideas, a project and a technical report,

2. listen to verbal instructions, lecture, talk, presentations, discussions, seminar, and conference,

3. comprehend spoken discourse on architecture topics,

4. write a technical report or a project summary,

5. use tables, diagrams and graphs to summarize data, and

6. ask and answer questions during the presentation and group discussion.

Week 10: Giving feedback to students' final project presentation

Content Objectives: Students will be able to:

1. understand and make a revision of the course concepts in overall picture.

Language Objectives: Students will be able to:

1. comprehend spoken discourse on architecture topics,

2. express opinions and feedback to their peers' work, and

3. make an oral and written summary.

VIII Evaluation

The assessment of the course will be as follows:

Attendance	5%
Assignments	15%
Mid-term exam	20%
Final project presentation	35%
Reflection paper	25%
Total	100%

VITA

Mrs. Sermsiri Prommeechai received her Bachelor's degree in English from the Faculty of Humanities, Kasetsart University. She is now an M.A. candidate in the English as an International Language Program (EIL) at Chulalongkorn University. Her current research interests include Needs Assessment, English for Specific Purposes, particularly English language learning and teaching, and English as an International Language.