A Proactive Evaluation of a Self-Directed English Language Program for Architecture Students at Chulalongkorn University

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Declaration

I, Akara Akaranithi, declare that this Doctor of Education dissertation entitled *A Proactive Evaluation of a Self-Directed English Language Program for Architecture Students at Chulalongkorn University* is no more than 60,000 words in length, exclusive of tables, figures, appendices, references and footnotes. This dissertation contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this dissertation is my own work.

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Signed Date

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Abstract

This study focuses on the development of the English for Architecture Program for architecture students at Chulalongkorn University. The research is set in the context of significant of change being made to the English for Architecture Program at Chulalongkorn University, Thailand. The study is based on a needs assessment within the Proactive Form of Evaluation as categorised by Owen, with Rogers (1999) and Owen (2006).

The research was conducted in two phases: a research review and a needs assessment. Following an analysis of these phases, a policy for revised English for Architecture Program was developed. A research review was undertaken to determine current best practice in self-directed English language programs. The needs assessment, involving questionnaire surveys, consisted of three steps, using both quantitative and qualitative methods. The first involved determining the perceived needs of students prior to undertaking the English for Architecture Program; the second involved determining the desired needs of students following their exposure to an introductory English for Architecture Program; the third involved identifying the desired needs of teachers who teach the English for Architecture Program.

A comparison of the quantitative outcomes of the surveys, using descriptive statistics, was undertaken in order to make a comparison between the three sets of responses. The issues that emerged – the role of students, learning style, materials, and assessment – were further investigated, using qualitative methods, by a series of semi-structured interviews undertaken with representative samples of students, and with experienced staff teaching the English for Architecture Program. The three sets of responses to the questionnaire, together with the issues that were discussed in the interviews,

were used to determine the needs of a revised program. Finally, the needs were matched with the outcomes of the research review in order to provide the basis for a complete course revision. The findings of this study were validated by means of triangulation of the outcomes of the research: the needs assessment and semi-structured interviews undertaken with architecture students and teachers; the outcomes of the research review.

The findings in the study indicate that teachers and students agreed that self-directed learning is an appropriate alternative way of teaching that can change the teaching and learning situation in the Thai context, and that such a change might help improve the efficiency in learning.

The research has three significant outcomes: the development of a policy for revised English for Architecture Program for architecture students; a demonstration of the effectiveness of Proactive Evaluation in developing such policy; identification of key elements that are required for change in organisations.

CHAPTER 1

Introduction

Introduction

Chulalongkorn University Language Institute (CULI), Chulalongkorn University, is required to provide English courses to students at undergraduate and graduate level. Due to its changing status at the time of this study – from being a state university to being an autonomous university – its aim is to be a 'centre of excellence'. Its policy is to provide and equip students with best knowledge in two areas: English and computer technology. As a result, teachers and students have to adapt themselves to meet these requirements. In order to keep pace with such changes, it was decided to adapt both teaching materials and techniques. Since there was not a single teaching technique that could be applied in the teaching and learning situation, many strategies for teaching and learning in the Institute were discussed over a long period of time.

Architecture students at Chulalongkorn University, Thailand, must study compulsory English courses for two years: namely, Foundation English I and II in their first year and English for Academic Purpose (English for Architecture Program) in their second year. The latter course, English for Architecture Program, has been taught without any changes in the materials for more than five years. During this period a number of problems arose for both teachers and students. These problems are summarised, as follows:

- **Pertaining to students:**
    - Students do not attend class regularly due to a great deal of project work in their subject-specific area.
    - Students feel bored with the existing English for Architecture Program.
    - Students find that texts assigned for reading were too difficult while others found it too easy.
- **Pertaining to teachers:**
    - Teachers lack confidence in subject specific area.
    - Teachers feel that they lose time and energy when students feel bored in class.

This study aimed to identify the most effective ways of delivering a self-directed learning English program to architecture students in Chulalongkorn University. Self-directed learning was to be introduced since it was believed that this approach would enhance the learning of students. Besides, students in Thailand have been exposed to learner-centred approach since they were in their elementary schools. A budget for the new way of teaching had been allocated in terms of purchase of computers and development of self-access learning centres and materials. The population in this study were first-year architecture students who were to enter their second-year and who had already studied Foundation English I and Foundation English II in their first year. They were selected in this study due to two reasons:

1. First-year architecture students are going study English for Architecture Program in the second year.
2. First-year architecture students have already been trained in using Self-access Centres which can be a part of self-directed learning.

Thus, this study aims to point out the needs of students and to clarify these in order that the results can lead to the guidelines for teachers to prepare themselves and realize the changing situation.

Background of the Study

According to the Thai National Education Act (1999), a learner-centred approach is to be introduced to most schools at primary and secondary level as well as at higher education levels. In most countries, universities are faced by unprecedented challenges including rapid technological and societal changes, and changes in educational paradigms (Otto, 2000). The impact of technology and globalism encourages changes in teaching and learning to serve the expected outcome (Kaufman, 2002). This has created a trend in teaching and learning that is designed to be of maximum benefit to students. Such trends in teaching and learning, according to Kaufman (2000) have produced the following: a paradigm shift from teaching to learning; principles for 'quality' education; expanded learning outcomes; student-centred and self-directed learning and teaching. Self-directed learning has been described by Knowles (1975, p. 1) as:

> a process in which individuals take the initiative, with or without the help of others, to diagnose their learning needs, formulate learning goals, identify resources for learning, select and implement learning strategies, and evaluate learning outcomes.

In most countries, universities are faced by unprecedented challenges (Otto, 2000): rapid technological and societal changes, changes to educational paradigms, etc. In terms of societal changes, factors involved include – impact of technology, information/knowledge explosion and globalism. The impact of technology and globalism encourages the changing in teaching and learning to serve the expected outcome (Kaufman, 2002).

Emergence of self-directed learning as a change in the current English language teaching situation

It is unavoidable that the teaching and learning situation has to be adapted to meet the needs of a changing world. Over the last few decades there has been a gradual shift in the role of teachers. Teachers in the Information Age are faced with changes (Kumari, 1998). Teachers play a lesser role while the role of learners is emphasized, more and more. Teaching and learning situations, nowadays, require not only the product of knowledge but the process of how to gain that knowledge as well. This emphasis on learners has inspired a large number of related changes of focus in education, such as stress on process over product (Bereiter & Scardamalia, 1987).

Learning is about a great deal more than acquiring knowledge and developing skills. If learners do not also develop the capability of directing their own learning and acting in the world around them, they will only partially educated, and limited in what they can do (Hammond & Collins, 1991). Moreover, learning is facilitated when the process is initiated and owned by the learner (Taylor, 1999). The learners have to become more independent, responsible and effective for their own learning (Codde, 1996; Long, 2001). This is a goal in higher education of many countries including Australia and Thailand (Wongsri et al., 2002). Thus, self-directed learning has begun to take a greater role during the past few years.

It is believed that self-directed learning will enhance the learning process of individual. According to Abdullah (2001, p. 1), self-directed learners are ‘responsible owners and managers of their own learning process’. Such individuals will have skills to access and process the information they need at their own pace. Moreover, research on learning styles has provided teachers with a different view of learning and demonstrated how to apply it to classroom teaching (Shumin Kang, 1999). Learning styles are internally-based characteristics of individuals for the intake or understanding of new information (Reid, 1995). According to

Kinsella (1996), a learning style is multidimensional. Its elements can be classified into five stimulus categories: environmental elements (sound, light, temperatures, and design), emotional elements (motivation, persistence, and responsibility), physical elements (perception, intake, time, and mobility), and sociological elements (self, partner, team, mentor, varied), and psychological elements (global/analytical, impulsive/reflective) (Reiff 1992). Clearly, learning styles include not only the cognitive domain, but also the affective and physiological domains (Oxford et al., 1992).

As for tertiary level in the Thai context, teachers need to be aware of changing learning styles due to the changing world. In past periods of Thai education, the development of the individual learners was one of Thailand's major education objectives (Miller, 1968). However, the development of the individual learners has been of greater concern in the current period of education reform covered by the National Education Act of B.E. 2542 (1999) (ONEC, 1999). As a consequence, the aim of Thai tertiary study is currently encouraging learners to become independent learners. At the same time, The Eighth Higher Education Development Plan 1997-2001 (Tiranasar, 1999) covers many aspects including teaching and learning processes. The plan states that teaching and learning processes in higher education need to encourage learners to be more flexible and independent by using innovative technology as teaching and learning media (Tiranasar, 1999). The Thai National Education Act also identifies strategies that can enable learners to learn by themselves (Povatong, 1999). Therefore, the teaching and learning situation requires the capability of learners as well as teachers.

Zeegers et al. (1999) note that a principal goal of higher education is to foster individuals who are capable, independent learners. However, one of the most influential components in the teaching and learning situation is the teacher. Teachers are now taking on a changing role in English language teaching. The teachers in the classroom will not be the 'managers' any more. In other words, the teachers will now act as facilitators who encourage the students to acquire knowledge by themselves. Teacher-directed learning may

be economical as a platform for dissemination of information but its effectiveness in terms of learning for transfer is thought highly questionable (Klionsky, 2002; Toole, 2000; Weld, 2002). Thus, the change in the English language teaching (ELT) situation especially in terms of learning style is the important issue to be explored later in the thesis.

Overview of the development of self-directed learning strategies

Since the trend of teaching is now focused on the learners themselves, self-directed learning has become an important role in the teaching and learning situation. Self-directed learning is recognized as an instructional method (Knowles, 1975), a personality attribute of the learner (Brockett & Hiemstra, 1991; Candy, 1991; Hiemstra, 1992), or a process for learning (Knowles, 1975). Self-direction is essential in the active development of adults' abilities in learning (Smith and Associates 1990). It is especially important for second language learners to be self-directed since it is impossible to give them direct guidance or instruction when they use the language outside the classroom. Clearly, English as a Second Language/English as a Foreign Language learners need to be empowered with a wide range of learning strategies in order to achieve competence and autonomy in learning the target language.

Knowles (1983) believes adult learning is optimal when individuals are enabled to be self-directed, use their experience as a learning resource, study in areas they consider relevant and applicable in real life situation, and where learning is problem-based rather than subject-based. The teacher's role is to engage with students in a process of mutual enquiry, promoting learning rather than transmitting specific facts. This approach demands equality of status and mutual respect between teacher and student. It is obvious that one of the most important tasks of the teacher is to raise student awareness of their roles in learning. Taylor (1995) suggests engaging students in discussion on topics from the Self-directed learning Readiness Scale. Example of topics are: 'I know that I want to learn and that I am a learner, so

if I want to learn something I can, and I like to learn and to solve problems because I know that thinking 'hard' can be fun'.

This idea is supported by Morrow, et al. (1993) who reported that when writers are allowed to choose their own topics, they write more often and they write longer pieces. However, students need some guidelines from teachers as well. Students do not have to be given total freedom. Teachers could, for instance, establish a thematic framework within which students are given choices (Gutheire, et al, 1997; Temple & Rodero, 1995).

The main elements of Knowles' description of self-directed learning are that adult students should identify their own learning goals, resources and methods, and also be involved in evaluating their learning (Knowles, 1990, Merriam, 1993).

As for self-directed learning, there are many studies and models proposed to support this concept. One was proposed by Hiemstra (1991) who offered the Personality Model (PRO) in which the teaching-learning transaction was defined as 'self-directed learning' while the primary characteristics of the students are labelled as 'learner self-direction'. Grow (1991a, p. 203) defines self-directed learners as 'those who, within a teacher controlled setting, take greater charge of their own motivation, goal-setting, learning, and evaluation'.

Grow describes a model of self-directed learning as a process involving stages of development of the learner. There are four stages of self-direction from dependent to self-directed in his model. The stages begin with minimal self-direction at the 'dependent 'stage followed by the 'interested 'stage and the 'involved 'stage. The fourth stage is the highest level of self-direction and is labelled 'self-directed'.

Meanwhile, Pilling-Cormick (1994) proposes a self-directed learning model that focuses on process orientation. The three major components of her model are the educator, the student and control. Facilitating and learning are the relationships between the educator and the student.

A self-directed model of learning, therefore, requires Thai teachers to expand their knowledge of language teaching and learning strategies and to develop students' flexibilities in learning gradually. Oxford (1990) argues that while presenting materials, teachers should provide colourful and motivating activities, personalized self-reflection tasks, some forms of cooperative learning, and powerful learning strategies to encourage self-direction in learning. According to Kang (1999), various learning strategies benefit learners differently. After a certain amount of practice and use, students will know how and when to use learning strategies to deal with their language problems. Consequently, they gradually become comfortable with the idea of assuming responsibility for their learning.

One example of learning style that focuses on learner-centred learning is task-based learning. This requires individual and group responsibility and commitment on the part of students. Within a task-based approach, teachers have to change from a traditional role to more creative and innovative ones (Krahnke, 1987).

Change in the teaching situation in the Thai context

Early patterns of learning in Thailand were determined by the context of the time. This could be both immediate, such as how to plant rice and the village order, to a slightly broader context including such things as the names and habits of birds, animals, fish and plants, beyond the village boundary. As there was not much contact beyond the village, there was little need for any broader knowledge and learning tended to be of both practical and immediate nature (Kirtikara, 1996, p. 96).

The situation in Thailand has changed due to rapid developments in technology and a rapidly improved economic situation. The rise of multiple technologies and globalization dynamics has led to a world in which there are 'no permanent structures of knowledge or meaning' (Stromquist & Monkman, 2000, p.11). Thai students in the era of globalization need

sophisticated knowledge and higher-order skills. To serve this new demand, English teachers need to change their roles. Thai teachers have to play new roles in today's technology-based learning to respond to the National Education Act of B.E. 2542 (1999) (Srisa-an, 1998; Nakornthan, 2000). The teaching situation may have to adapt itself to such changes. Teachers have to play less and less role in the classroom whereas students as learners themselves have to act more and more. Teachers are no more just knowledge feeders, but facilitators (Nunan, 1998). They have to play the roles of tutor, mentor and helper to help learners develop information skills efficiently (Warschauer, 1998; Sri-sa-an 1998).

Internationally, this change has been reflected in the following: The Northeast Conference (1990) entitled 'Shifting the Instructional Focus to the Learner'; annual Learners' Conferences held in conjunction with TESL Canada conventions since 1991; in key works on 'the learner-centred curriculum' (Nunan, 1988, 1995); 'learner-centredness as language education' (Tudor, 1996).

The change may also be seen in the national Thai context. For example, it was evident in the annual Thailand TESOL conference (2005) entitled 'Surfing through the waves of change'. In the next year the Thai TESOL Conference 2006, held in Bangkok, was entitled 'Leadership: Initiating and Managing Change in ELT'.

The trend of managing the change can be found currently. One cause of the change is globalization. Universities across the nations can exchange their views and knowledge without boundaries. The traditional way of teaching may not be sufficient for the current situation. Change has to be a part of the culture. However, change requires moving from, or relinquishing a particular condition or circumstance and adopting another. Within the process of change, there are various risks for those making the change and those affected by the change, and there are perceived benefits to be gained once the change is made (Evans & Nation, 1993).

In order to cope with change, teachers have to find the most suitable learning strategies for their students. A key alternative strategy in this era is self-directed learning. Self-directed learning is well-supported by the application of computer technology and learning materials can be easily found on-line. Distance education and computer aided instruction (CAI) are viable alternative for all students. Students can use the Internet easily to search all the information they need. As suggested by Srisa-an (1998) and Nakornthan (2000), the Internet may be adopted and integrated into learning and teaching at all educational levels to maximize learning for all Thai people. Internet technology can help to make the transition from the traditional teaching approach to new kinds of learning. That is, the Internet may be used in the classroom to change the learning and teaching process from teacher-centred to learner-centred approaches (Srisa-an, 1998).

While internet-based instruction encourages self-directed learning, studies show that teacher mediation and real-time interactivity increase the effectiveness and completion rate for distance education (Sherry 1994). Students need direction and feedback from instructors and the opportunity for discussion and teamwork with their peers. Without interactivity and connectivity to the rest of the world, distance education becomes an independent, impersonal and isolating form of learning (Sherry 1994). New technologies and delivery methods have altered the traditional role of teachers in the learning process; however, teachers still have a responsibility for stimulating students' interest in a topic and motivating them to participate fully in the Internet classroom (Updegrove, 1995). To conclude, it is unavoidable that the English teaching and learning situation in Thailand has to face changes. To be well-prepared for such change, things need to be done in order that both teachers and students can cope. It is hoped that the outcome of the changes might bring the most benefit to both teachers and students in the Thai context.

As for this study, the changing context within the university where data collection took place has forced the teaching and learning there to be

prepared for these changes. It has been the case that a child-centred approach has been focused at the primary and secondary level. Tertiary level students should be provided with the same opportunity if it is hoped that such an approach can give benefits to students. Besides, the public and private sector expect that those graduates will be able to use competencies learned in their work. Our country needs to compete with others in many aspects. Thus, it is hoped that our teaching and learning situation will help improve the English proficiency among those students.

Thus, for architecture students who are going to study English for Architecture Program may find self-directed learning suitable for them since it offers the way to teach students with the emphasis on learning of individuals with motivation. It is hoped that those students will be responsible for their own learning and meanwhile develop their own learning

This study aims to explore the changing status of the teachers as well as the learning style of students. Self-directed learning was introduced in this study since it would enhance the learning style of students to be more independent as required by the policy and the external environment. It is hoped that students at tertiary level can be regarded as adults and self-directed learning may suit their learning style more or less.

How self-directed learning supports learning at tertiary level

For Thai universities in particular, the expectations of Thai society are high and demanding. In order to compete with other countries in terms of the work market, those graduates need to be competent. To equip them with competence, good knowledge of English and computers are required. The National Education Act of B.E 2542 (1999) (ONEC, 1999) has stated that the approach to learning should be student-centred. As a consequence, many educational institutions have allocated significant resources to the provision of technological aids, e.g., multimedia rooms, computers and software. The changing context has caused adaptations that will be of utmost benefit to the

students. Thus, the teaching and learning styles have to be adapted to meet for the changing situation. According to Dr Sheldon Shaeffer, UNESCO, Bangkok, the teacher's changing roles – shown in a continuum from traditional to modern – consist of a number of shifts (see Figure 1.1, below).

Similar changes have been brought about in the Thai context. It has been a controversial issue for many years – 'How can Thai students be fluent in English after they have learned for twelve years?'This is why a learner-centred approach was introduced to the National Act and has been enforced by the Ministry of Education. Similarly, tertiary education needs to be adapted to the change. In addition, budget has been allocated for the investment in the computer technology and learning technologies. It is essential for university teachers to be trained in computer skills since students now are used to learning and acquiring information from the Internet.

FIGURE 1.1 CHANGES IN TEACHERS' ROLES

Traditional	…change…	Modern
Teaching as an occupation	to	Teaching as a profession
A sole source of information	to	One of multiple sources of information and knowledge.
An authority of knowledge and a mentor of a learner	to	Learning coach and a guide in exploring and discovering
A transmitter of factual knowledge	to	A facilitator for learning knowledge, skills and values
A chalk-talk lecturer	to	A specialist in teaching with new technologies
Working alone	to	Working as a team member
A teacher confined within school walls	to	An active worker in the community and a parents' partner
A passive, conservative force of inertia against change	to	A proactive agent of change and an active participant in the transformation of education

In order to cope with such changes, teachers need, particularly, to be trained in Information and Communications Technology (ICT), particularly in the use of websites and the creation of homepages. Teachers should be guided and advised in terms of computer technology usage since it can assist teaching and learning in the classroom. Besides, teachers should not be afraid of the change they are going to face; instead, they should have faith in a change that will bring more benefit to the students. It is essential for us to support the teachers and build confidence in them as well.

Proactive Evaluation: An Approach for Change

House (1993, p. 2) suggests that evaluation consists of:

> … collecting data, including relevant variables and standards, resolving inconsistencies in the values, clarifying misunderstandings and misrepresentations, rectifying false facts and factual assumptions, distinguishing between wants and needs, identifying all relevant dimensions of merit, finding appropriate measures for these dimensions, weighting the dimensions, validating the standards, and arriving at an evaluative conclusion.

Programs can be divided into five specific types (Funnell & Lenne, 1989):

1. Educational programs which emphasise the acquisition of information, skills and attitudes typically provided through formal learning settings by institutions such as schools, colleges and universities.
2. Advisory programs which includes communication and mass education programs for the public.
3. Regulatory programs which try to influence behaviour to alleviate a problem through a process of deterrence.
4. Case management programs where individual objectives are set for each case within an overall program framework.

5. Product or service provision of which the example is the provision of services.

This study intends to explore the English Course provided for Architecture students – a type one program, as defined above; thus, an evaluation for an educational program is to be conducted. Since there are many types of evaluation mentioned, it is important to choose the most suitable one for the context.

According to Owen, with Rogers (1999), evaluation can be classified into five categories as follows:

1. Proactive evaluation
2. Clarificative evaluation
3. Interactive evaluation
4. Monitoring evaluation
5. Impact evaluation.

Among the five types of evaluation a Proactive Evaluation was chosen in the study. Evaluation within this form takes place before a program is designed. It assists program planners to make decisions about what type of program is needed.

To find the most suitable approach in teaching requires the analysis of the existing one in terms of the problems and requirements from the students. A Proactive Evaluation has been chosen for this study since it concerns the findings to aid decision making in the teaching and learning situation. Besides, there is the need for a change, or a review of the approach, due to two reasons: first, the impact of technology; second, the movement towards a student-centred approach.

Lynch (1990) provides a definition of evaluation: the systematic attempt to examine what happens in, and as a result of, language program, typically serves as the basis for judgements and decisions about program.

Therefore the attempt to find what happens during classroom teaching and the results can provide data for the teacher to prepare themselves for a change in the future. Especially when the teachers want to decide which approach of teaching is most suitable, a Proactive Evaluation could provide input to decisions about how best to develop a program in the best way in advance of the planning stage. (Owen, with Rogers, 1999)

Such an evaluation is normally carried out before a program is developed, and the focus is on the program context. It consists of three major approaches (Owen, with Rogers, 1999, p. 171): needs assessment, research review and review of best practice to establish benchmarks. In this research only the first two approaches will be used.

How Proactive Evaluation was to be Implemented in the Development of the English Language Program

Evaluation may be planned for two main reasons. One motivation is its use as a means of explaining and confirming existing procedures. In such a case, evaluation is used to obtain feedback about classroom practice. The aim is to explore the reasons why something is working well in the classroom and why it is appropriate for a given target audience. Evaluation, according to this first meaning, is used to confirm the validity of features of the classroom context. A second motivation for evaluation is to gain information to bring about innovation or change. Evaluation and innovation are therefore closely related concepts, with evaluation forming a basis or a subsequent change or modification within the curriculum. It is this second sense of evaluation that will be applied in this research

Innovation may relate to the introduction of something large in scale, such as a new textbook. Alternatively, it may refer to something much smaller in scale such as a new procedure for the development of listening skills with learners who are beginning English. Whatever the nature of the innovation, it should result from an evaluation of some kind. Of course changes take place for which there has been no planned evaluation. In fact, a

large number of changes in our teaching contexts occur in an unsystematic fashion. But innovation should be planned and managed. The process of evaluation can usually inform the nature and implementation of an innovation.

Statement of the Problem

Otto (2000) points out that in most countries, universities face unprecedented challenges: rapid technological and societal changes, and educational paradigm shifts. In Thailand, change is required in all sectors of education, and especially in tertiary education.

The teaching and learning situation is impacted upon by internal and external factors; in particular, a significant internal factor emerges when the learners have a greater competency in computers than do their teachers. Besides, a child-centred approach has been emphasized since the students were young, according to the National Education Act of B.E. 2452 (1999) (ONEC, 1999). The theory of teaching and learning being discussed at present moved to postmodernism and constructivism.

It is likely that self-directed learning, as discussed in detail above, might assist in resolving problems encountered in the English for Architecture Program. Specifically, ways of enhancing both teaching and learning needed to be identified. Besides, the university policy states that Chulalongkorn University students should be well-equipped with two skills: English and computer. One outcome of this policy was that classrooms were promptly equipped with computers. Consequently, these computers were immediately available to all English classes prior to any changes in the programs of teaching and learning.

A Proactive Evaluation was undertaken for this study since it enabled identification of the needs of both teachers and students by means of a Needs Assessment. This study will reveal whether or not self-directed learning

might prove to be successful with architecture students at Chulalongkorn University.

Objectives of the Study

Self-directed learning – an alternative way of teaching and learning – was to be introduced in the English for Architecture Program. The purpose of the study was to conduct a Proactive Evaluation to explore whether a self-directed English program could be applied to the situation. This was to be achieved through an identification of the needs of students and teachers in the area. So, this study explores the possibility of the implementation of the change in the English language course- English for Architecture Program, which has been taught to architecture students for more than five years. The time to change has arrived when the policy of the university and the changing world of technology had to become aligned.

Significance of the Study

As for Proactive Evaluation and self-directed learning, there appears to have been no study in this area. This study will form a starting phase for the teachers of English language teaching to realise a move towards self-directed learning.

Thus, to elicit the ideas and problems found from those students might lead to guidelines for the study. To design the most appropriate course for the architecture required the information from both students and teachers. Since the English for Architecture Program is taught regularly each year, a Proactive Evaluation was employed in the study to identify the needs and issues of students undertaking the changed course. A Proactive Evaluation was considered appropriate to bring about change in the existing program. This study thus aims to adopt a Proactive Evaluation in identifying the most effective course for architecture students. Three phases in a Proactive

Evaluation have been implemented to reveal the most suitable way of self-directed learning for the current program.

This study was to explore the self-directed learning concerning teachers' role, students' preferences, teaching materials and assessment of the English for Architecture Program. Then, the first-year architecture students were asked in terms of the teaching and learning situation about the English for Architecture Program they were about to study in their second year.

Summary

As previously discussed, research has shown that there are numerous ways in which self-directed learning can be effectively used in the classroom in the current situation in which technology has been extensively used. Self-directed learning is regarded as the suitable alternative for English teachers in Thailand. Self directed learning encourages learners to acquire knowledge with the emphasis of the process in learning rather than product.

Self-directed learning can be applied in the Thai context, where a learner-centred approach is regarded as important by national education policymakers. However, it needs to be made clear at this point that the implementation of self-directed learning requires a mutual understanding between learners and teachers. Teachers have to realize that their role has to be changed and they have to form the learning strategy to suit with the new way of teaching. Students also have to choose their own learning style and try to be independent in their study. Thus, the mutual understanding between the teachers and learners is needed in the self-directed learning. The goal has to be clearly set and achieved by the two parties. Without the correct guidance, self-directed learning might not implemented appropriately and this might not yield the results as expected.

As for the current situation at Chulalongkorn University language Institute (CULI), self-directed learning has been considered as an alternative

way of teaching for the English for Architecture Program. Impact caused by the use of technology and the students themselves who are used to working with the project work becomes the factors that encourage the change in teaching and learning situation. Besides, the National Act (1999) emphasizing the child-centred approach encourages the teaching and learning at tertiary level to adapt itself and provide students with more relevant approach. However, it is not easy to change the traditional way of teaching without asking those who are involved. Self-directed learning is a new approach proposed in the changing context and it is believed that such an approach would be suitable for those studying architecture. Thus, it is necessary to undertake an evaluation; namely a Proactive Evaluation, to find out the best way before this approach is used. Needs assessment and research review are the key approaches for the evaluation. Students and teachers should be asked in terms of their needs and problems

Research Questions

The Chulalongkorn University Language Institute (CULI) has, as its duty, to provide English courses to students at graduate and undergraduate level. Its aim is to become a centre of excellence, especially in English and computer technology. The Faculty of Architecture is one of the oldest faculties at Chulalongkorn University, and it has produced graduates of renown for more than fifty years. Architecture students are required to undertake projects that demand creativity and ability to work independently.

As a consequence, architecture students prefer to study independently, using guidelines provided by teachers. In consideration of this issue, the main research question to emerge is as follows:

- What are the essential elements of a self-directed English language program for architecture students at Chulalongkorn University, Thailand?

Related sub-research questions are as follows:

- What teaching styles and modes of delivery need to be included in the design of a successful self-directed English language program for architecture students?
- What are the benefits of self-directed learning in the teaching and learning of English to second-year architecture students?
- What kind of materials and content do architecture students require, and prefer, in order to experience success in English?

Structure of the study

In order to provide an overall perspective of this study, this dissertation is divided into five chapters as follows:

Chapter 1

In this chapter, the introduction and rationale for the study are presented. This includes an overview of the study and its context, its background and research questions, its contribution to knowledge, and its significance.

Chapter 2

In this chapter, the literature associated with the theories and application concepts used in this study are reviewed: the Proactive Form of Program Evaluation (Owen, with Rogers, 1999; Owen, 2006), and major issues in language learning with emphasis on the application of self-directed learning as an alternatives approach to English Language Teaching.

Chapter 3

This chapter explains the research methodology and research design for the study. In each phase, details of the participants, data collection and the analytical methods used are provided.

Chapter 4

This chapter is divided into two parts: research review and needs assessment. It presents the figures and data of the findings. Major issues from the questionnaires are discussed in terms of the role of teachers, role of students, materials, skills, preferred practice of teaching and evaluation.

Chapter 5

This chapter presents the information collected from both steps: research review and needs assessment. Discussion of the major issues raised is undertaken. The most important part is the outline of a proposed EAP course which can be drafted from the data gathering phase.

CHAPTER 2

Review of Related Literature

Introduction

This study adopted a Proactive Evaluation to identify whether self-directed learning could be the most suitable approach in the English for Architecture Program for architecture students. In this chapter, the researcher considers relevant research in the field of Proactive Evaluation and self-directed learning. Most importantly, a study of self-directed learning in English Language Teaching (English Language Teaching) is considered in order to point out the similarities and differences in different contexts: many issues concerning self-directed learning and English language teaching practice in general terms are investigated.

The study of self-directed learning is considered first from a theoretical perspective and then from a practical perspective. First, major issues related to English language learning will be discussed followed by the issue of self-directed learning. This is followed by an investigation of the ways by which self-directed learning theory might be applied to English Language Teaching in changing situations. Second, the ways in which self-directed learning might be applied in English Language Teaching are considered. Finally, evaluation models mostly suitable for use in the English Language Teaching context are discussed including their distinctive features and advantages.

Overview of major issues on language learning

Learning depends primarily on the behaviour of students (Cross, 1993). Therefore, teaching for effective learning requires understanding of how people learn, where and why learners have difficulty, what are their preferences in teaching, and what practices are most effective for helping them progress toward more complex and sophisticated understanding. Only when this understanding is achieved can we promote students' meaningful learning (Kreber, 2000). Furthermore, Pemberton et al., (1996, p. 1) cite changes in educational philosophy, language-learning theory, political beliefs, the need to adapt to rapid changes in technology, communications and employment, the recognition that learning to learn is now more important than knowledge, and opportunities provided by technological developments to expand educational provision at the same time as cutting costs.

First and second language acquisition

First of all, it is interesting to explore how language learning is acquired both in terms of first language acquisition and second language acquisition. Chomsky (1965) stresses that, in acquiring their first language, learners depend on their 'Language Acquisition Device'. According to Chomsky, in order for the Language Acquisition Device to work, learners need access to input, or primary linguistics data, which serves as a trigger for activating the device. In summary, both the Language Acquisition Device and the input are necessary for first language learners to discover the rules of their first language. As for second language acquisition, the available evidence suggests that second language learners manifest a similar developmental route. However, Ellis (1985) points out that the role of linguistic universals in second language acquisition are more complicated because two languages are involved. In addition to linguistic universals and input, first language knowledge comes into play. Furthermore, Selinker (1972) posits that not all learners are able to activate their acquisition device to transform the universal

grammar into the target language grammar; it can be expected that a few learners will be very successful, even achieving native-like proficiency.

According to Ellis (1994, p. 26), 'it is self-evident that second language acquisition can only take place when the learner has access to input in the second language'. It is believed that learners who receive the most input will exhibit greater proficiency in learning a second language. This is supported by Krashen (1981, 1982, 1985) who points out that language acquisition takes place only when learners have opportunity to receive a sufficient amount of comprehensible input. He proposes 'The Input Hypothesis', explaining that learners need input that contains examples of the language features which, according to the natural developmental order, are due to be acquired next.

In general, first language development takes place naturally. On the other hand, second language acquisition can take place both in formal classroom environments and in naturalistic settings. Dulay et al. (1982, p. 278) define 'natural language environment' as one 'where the focus of the speakers is primarily on the content of the communication' and formal language environment as one where 'the focus of the speakers is primarily on the form of the language' respectively.

Thus, there has been an attempt while doing research in terms of second language acquisition to find out the most suitable theory for the learners. It is believed that second language acquisition research can provide valuable knowledge for language teachers. It can provide an answer to the following question: 'What are the conditions that facilitate and promote language acquisition in the classroom?' and 'How can we bring about those conditions in our classroom?' (Ellis, 1993, p. 4).

Self-directed learning

Definition of self-directed learning

Several models in the literature have described self-directed learning as a process (Brockett & Hiemstra, 1991; Garrison, 1997; Grow, 1991; Hammond & Collins, 1991; Knowles, 1975; Spear, 1988; Tough, 1971). Merriam & Caffarella (1999, p. 293) grouped these self-directed models into three types: linear, interactive, and instructional. According them, 'Being self-directed in one's learning is a natural part of adult life'.

Earlier, Guglielmino (1978) identified initiative, independence, and persistence in learning; responsibility for one's own learning; self-discipline; curiosity; ability to work independently; pleasure for learning; propensity to be goal-oriented; and tendency to view problems as challenges rather than obstacles as psychological qualities involved in readiness for self-directed learning.

As the term suggests, self-directed learning views learners as responsible owners and managers of their own learning process. Self-directed learning integrates self-management of the context, including the social setting, resources, and actions) with self-monitoring (the process whereby the learners monitor, evaluate and regulate their cognitive learning strategies) (Bolhuis, 1996; Garrison, 1997).

There are numerous definitions regarding self-directed learning. In terms of schooling, Della-Dora & Blanchard (1979, p. 1) offer the following view:

> Self-directed learning refers to characteristics of schooling which should distinguish education in a democratic society from school in autocratic societies.

Another concept of self-directed learning, proposed by Hiemstra (1967a, p. 39) is as follows: self-planned learning is 'a learning activity that is self-directed, self-initiated, and frequently carried out alone'. Brockett (1983b, p. 16) suggests a similar concept:

> Broadly defined, self-directed learning refers to activities where primary responsibility for planning, carrying out, and evaluating a learning endeavour is assumed by the individual learner'.

Several models in the literature have described self-directed learning as a process (e.g., Tough, 1971; Knowles, 1975; Brockett & Hiemstra, 1991; Grow 1991; Hammond & Collins, 1991; Garrison, 1997). There are, however, three authors who have tried to clarify the meaning of self directed learning more specifically:

1. Brookfield (1984c) uses an argument presented by Boshier (1983) to point out that there is an ambiguity in the term 'self directed learning' caused by confusion between learning (an internal change process) and education (a process for managing external conditions that facilitate this internal change): the term 'self directed learning' might best be reserved for the former while 'self-directed education' might be reserved for the latter.

2. At about the same time, Fellenz (1985) made a distinction between self-direction as a learning process and self-direction as an aspect of personal development. According to Fellenz (1985, p. 164), self-direction can be viewed in one of two ways:

   > … either as a role adopted during the process of learning or as a psychological state attained by an individual in personal development. Both factors can be viewed as developed abilities and, hence, analysed both as to how they are learned and how they affect self-directed learning efforts.

3. Finally, Candy (1988) has offered further support for a distinction between concepts. In a critical analysis of the term 'self-direction' through a review of literature and synthesis of research findings, Candy (1988, p. 1033-A) concludes that self-direction has been used:

> … as a personal quality or attribute (personal autonomy); (ii) as the independent pursuit of learning outside formal instructional settings; and (iii) as a way of organizing instruction (learner-control).

A variety of views have been expressed towards the meaning of self-directed learning including motivation and volition, collaboration, real-life learning, and shifting control. Self-directed learning recognizes the significant role of motivation and volition in initiating and maintaining learners' efforts. Motivation drives the decision to participate and volition sustains the will to see a task through to the end so that goals are achieved (Corno, 1992; Garrison, 1997). At the same time, self-directed learning is, ironically, highly collaborative (Guthrie, Alao & Rinchart, 1997; Temple & Rodero, 1995). Self-directed learning develops domain-specific knowledge as well as the ability to transfer conceptual knowledge to new situations. It seeks to bridge the gap between school knowledge and real-world problems by considering how people learn in real life (Bolhuis, 1996; Temple & Rodero, 1995). In self-directed learning, control gradually shifts from teachers to learners. Learners exercise a great deal of independence in setting learning goals and deciding what is worthwhile learning as well as how to approach the learning task within a given framework (Lyman, 1997; Morrow et al., 1993).

Knowles' (1975) definition of self-directed learning is perhaps the best known and most-cited; it is the definition with which I am most comfortable and which I will use throughout this study. Knowles (1975, p. 18) suggests that, in its broadest meaning,

> self-directed learning describes a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes.

The definition given by Knowles shows that self-directed learning emphasizes the learning process rather than its product. Besides, learners themselves are able to control their learning strategies and identify their needs.

In my study, it is hoped that this kind of strategy will enhance those architecture students in the current situation to acquire English and develop their learning strategy. This study therefore explores the way architecture students might improve their English language skills using a self-directed learning approach.

For the purpose of this study, I consider self directed learning to include the freedom of choice of the learners in learning, the selection of one's own materials and the development of one's own way of learning. It is hoped that self directed learning could be an alternative in the situation when the learners have to learn on their own with the help of computer technology.

History of self-directed learning

The concept of self-directedness in learning was first discussed in educational literature in the early nineteen-twenties. From these writings, a preliminary description of self-directed learning emerged. Lindeman (1926, p. 16, in Brookfield, 1984) points out that:

> Adults are motivated to learn as they experience needs and interests that learning will satisfy…adults have a deep need to be self-directing; therefore the role of the teacher is to emerge in a process of mutual inquiry.

Actually, self-directed learning has a long and rich history. Kulich (1970) noted that, prior to the evolution of formal schooling, self-education was the primary means individuals had of dealing with the changes going on about them. Self-education, for example, has been an important tool in the lives of scholars throughout the history of Western civilization – beginning with

Socrates and Aristotle, for example (Tough, 1967). Socrates is reported (McQueeney, 1999, p. 1) as saying:

> I shall only ask him, and not teach him, and he shall share the enquiry with me: and do you watch and see if you find me telling or explaining anything to him, instead of eliciting his opinion.

It can be thus seen that one of the greatest Greek philosophers emphasized respect for the learning of each individual human being.

Ground-breaking research, reported in Guglielmino's (1977) dissertation, provides some general guidelines to the psychological qualities of self-directed learning related, generally, to this study. Guglielmino developed a Self-Directed Learning Readiness Scale, an instrument subsequently used by many researchers to measure self-directed readiness or to compare various self-directed learning aspects with numerous characteristics. Guglielmino (1978) identified the following psychological qualities involved in readiness for self-directed learning: initiative, independence, and persistence in learning; responsibility for one's own learning; self-discipline; curiosity; ability to work independently; pleasure for learning; propensity to be goal-oriented; a tendency to view problems as challenges rather than obstacles.

More recently, Houle (1988, p. 92) concludes that there are three types of adult learners: goal-oriented, activity-oriented, or learning-oriented. His 'learning-oriented learners' have been identified with self-directed learners; he identifies investigations of 'self-directed study', in which an individual or a group accepts responsibility for designing and pursuing an 'educative activity'. Houle used an interview technique with several adult learners to develop a motivational typology of learning styles. He discovered that people generally were either goal oriented (some specific goal or objective serves as the learning stimulus), activity oriented (being with others in the pursuit of learning is the primary motivation, or learning oriented (enjoyment of learning for its own sake is the stimulator). More recent

research that involved both formal and informal learning prompted the addition of a fourth category identified as 'the self-reliant, autonomous, and independent learners' (Hiemstra, 1976, p. 35).

While this study focuses on a Proactive Evaluation designed to provide direction for change in a pre-existing program, the history of self-directed learning briefly discussed above provides an indication of the criteria that might be addressed when attempting to locate the key issues for consideration in the development of questionnaires and semi-structured interview schedules.

Overview of a self-directed learning approach

A self-directed learning approach serves the independent study needs of students; consequently, the approach should be introduced in a situation where students are encouraged to study on their own. At the same time, a self-directed learning approach should enhance creativity and language capability in each student.

Three major points that emerge from the literature on this approach are summarised by Hiemstra et al. (1991) in order to clarify important aspects of self-directed learning research and theory:

- individuals taking responsibility for their own learning is central;
- self-direction can be seen as both as instructional method (self-directed learning) and a personality characteristic (Learner self-direction); and
- the social context in which learning takes place is important.

When applying self-directed learning approaches in the classroom, the three important issues that need to be mentioned are the role of teachers, how to motivate students and what learning strategies should be applied.

Role of teachers in self-directed learning

When implementing a self-directed learning approach, teachers should realize that their role may be lessened. Lyman (1997) and Bolhuis (1996) stress that teachers who want to encourage self-directed learning must free themselves from a preoccupation with tracking and correcting errors, a practice that is go-threatening (Gutherie et al., 1996). Such things seem to be normal in the Thai context because it gives a chance for the older, more experienced teacher to take care of the younger.

There are more suggestions in preparing the role of teachers in the classroom. Leal (1993) advocates allowing learners to explore ideas through peer discussions, even without fully intact answers: a process that can yield new and valuable insights. Corno (1992) suggests allowing learners to pursue personal interests without the threat of formal evaluation. Furthermore, Corno suggests that 'to establish the habit of self-monitoring, teachers need to encourage learners to reflect on what they did and to revise attempted work'.

On a different tack, Temple & Rodero (1995) advocate a situated learning approach, in which teachers bring real-life problems into the classroom for learners to work on. These authors advise against 'sugar-coating' work with fun, the rationale being that if the tasks are meaningful, learners will work on them willingly. Learners should be allowed to collaborate with teachers in determining deadlines and other regulations.

Teachers may have to change and become more passive in a self-directed learning approach in order that students might be more active. This idea is supported by Brookfield (1995, p. 6), who provides a rationale for the instructor to become more than a passive fixture who allows students total academic license:

> If the educator is restricted from presenting the adult with alternative ways of interpreting the world or of creating new personal and collective futures, then the educator becomes a kind of master technician who operates within

> a moral vacuum. While the educator is allowed a role in assisting students to refine their techniques of self-directed learning, that educator is constrained from offering value systems, ideologies, behavioural codes, or images of the future that the adult has yet to encounter.

It is believed that teachers can help a great deal when they understand their role and step back to watch their students develop through a self-directed learning approach.

Motivation of students in self-directed learning

Self-directed learning requires the learners to study on their own and choose what they like and want to study in order that they can develop by themselves. To achieve this requires that those learners are highly motivated. Grow (1991a, p. 203) defines self-directed learners as:

> those who, within a teacher controlled setting, take greater charge of their own motivation, goal-setting, learning, and evaluation.

However, student motivation is complex and multidimensional (Lumsden, 1994; 1999). Fundamentally, it comprises the various situational reasons why students choose whether or not to engage in academic tasks. Student motivation is a slippery concept, in that a student may be intrinsically motivated to perform a particular task but extrinsically motivated to perform another.

Goal orientation is a narrower concept than student motivation. Defined by Caraway et al. (2003) as the individual's ability to make plans and set goals, it works in conjunction with self-efficacy to increase motivation. Self-efficacy is defined as 'people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances' (Bandura 1986, in Linnenbrink & Pintrich, 2003, p.120). Goal-oriented individuals set challenging goals for themselves and maintain high levels of commitments to those goals despite encountering obstacles or challenges.

Linnenbrink & Pintrich (2003) describe three important components linked to self-efficacy: behavioural engagement, cognitive engagement, and motivational engagement. In terms of motivational engagement, it includes the students' personal interest in a task, and perceptions of the utility value and general importance of the task. Thus, it is important to design tasks that can encourage students to practice and apply their skill and ability as much as they can. Morrow et al (1993) report that when writers are allowed to choose their own topics, they write more often and they write longer pieces. Motivation seems to be important since it can attract and draw students to study more or less in a self-directed learning approach.

Meanwhile, Lessard-Clouston (1997, http://iteslj.org/) suggests that motivation is a key concern both for teachers and students:

> Yet while teachers hope to motivate our students and enhance their learning, professionally we must be very clear not to manipulate them in the process, recognizing that ultimately learning is the student's responsibility. If our teaching is appropriate and learner-centred, we will not manipulate students as we encourage them to develop and use their own language learning strategy. Instead, we will take learners' motivation and learning styles into account as we teach in order for them to improve their second language and foreign language skills and language learning strategy.

Learning strategy in self-directed learning

Another aspect of self-directed learning that needs to be considered is the learning strategy. Learners have different strategies, approaches, and capabilities for learning that are a function of prior experience and heredity. It is believed that individuals are born with, and develop, their own capabilities and talents. According to O'Malley & Chamot (1990, p. 1):

> Language learning strategies can be defined as "the special thoughts or behaviours that individuals use to help them comprehend, learn, or retain new information".

According to Clouston (1997, http://iteslj.org/), there are a number of basic characteristics in the generally accepted view of language learning strategies. First, language learning strategies are learner generated. They are steps taken by language learners. Second, language learner strategies enhance language learning and help develop language competence, as reflected in the learner's skills in listening, speaking, reading, or writing. Third, language learning strategies may be visible (behaviours, steps, techniques, etc) or unseen (thoughts, mental processes). Fourth, language learning strategies involve information and memory (vocabulary knowledge, grammar rules, etc).

Pask (1988), on the other hand, identified two learning strategies: (a) the holistic strategy, and (b) the serialist strategy. Students using holistic strategies prefer, from the beginning, to look at the learning task in its wider context. They also make extensive use of illustrations, examples, analogies, and anecdotes in building up an idiosyncratic form of understanding deeply rooted in personal experience and beliefs. Students using serialist strategies prefer starting with a narrow focus, concentrating on details and logical connections in a cautious manner, and looking at the broader context only toward the end of learning the topic. Although the majority of students were found to show a bias toward one or the other style, some students were found to have a versatile style, comprising a readiness to use both strategies in conjunction, with the particular balance between them determined by the nature of the task.

It is unavoidable that when learning languages, learning strategies form an important part in the process. This can help students acquire the knowledge more or less depending on the strategies used in teaching and learning. Language learning strategies include many characteristics that are applied by the learners. As Oxford (1990a, p. 9) points out, there are a number of language learning strategies that may enhance the way a self-directed learning approach is used. These involve:

- allowing learners to become more self-directed;
- expanding the role of language teachers;
- ensuring the approach is problem-oriented;
- including many aspects, not just the cognitive;
- ensuring that the material can be taught;
- being flexible;
- accepting the influence of a variety of factors.

Finally, teachers need to model learning strategies such as predicting, questioning, clarifying, and summarising, so that students can develop the ability to use these strategies on their own. Teachers also need to allow individual learners to approach a task in different ways using different strategies. Thus, to encourage students to find their own learning strategies is essential in a self-directed learning approach.

Skills for self-directed learning

A self-directed learning approach requires special skills to practice and serve the approach. According to Long et al. (1989, p. 1-2), six kinds of cognitive skills appear to be important in successful self-directed learning. They are as follows:

4. goal-setting skills;
5. processing skills;
6. executive skills;
7. decision-making skills;

8. self-awareness;
9. lack of support.

These are now examined in more detail.

Goal setting skills

Many individuals need to be taught how to determine what is important and how to select from among alternative possibilities. These individuals have become accustomed to having questions and problems identified for them rather than developing the cognitive ability to engage in problem identification and problem posing. As a consequence, they also may have limited observational skills that inhibit their ability to determine what is important in their learning environment (Long, et al., 1989, p. 1).

Processing skills

Even though good, strong reading ability is often identified with successful self-directed learners, there are other information processing skills that are also important. From the available research it is assumed that the self-directed learner is able to attend to, and process, information by the following skills (Long, et al., 1989, p. 1):

- **Observing** – the ability to see and do, or the ability to see and understand.
- **Seeing and translating** –the ability to translate visual information to notes and records, or the ability to reproduce visual information graphically and to relate it to existing information schemes.
- **Reading** – the ability to read, translate, and comprehend written material.
- **Listening** – the ability to receive and process aural information and relate it to existing information schemes.

In addition to the above information processing abilities other cognitive skills appear to be associated with self-directed learning success. Some of these skills are (Long, et al., 1989, p. 1):

- sensory, including the ability to select from multiple sensory input, and identify and classify the sensory information;
- memory, working memory is important in the processing of information before it is assimilated into existing long-term memory;
- elaboration includes the ability to take an item from working memory and process it by imaging, deducing, discriminating, generalizing, etc.;
- problem solving and problem posing.

Executive skills

If self-directed learners seem to be different from other directed learners in the degree to which they can focus on information, monitor their processing and other cognitive activities, and in the way they react to information, then self-directed learners are aware of when they cease to interact with written material, and begin merely to process words. Executive skills required include the following (Long, et al., 1989, p. 2):

- pre-task monitoring;
- using a strategy for gathering and using information;
- information gathering;
- self-awareness;
- self-monitoring;
- reflection;

- assimilating/accommodating.

Decision making skills:

Regardless of the label, the self-directed learner must develop the ability to identify, prioritize, select, validate, evaluate, and interpret information obtained through the processing skills. Information is not equal; some is more useful than others for given purposes. Learners who are unable to establish some kind of observation protocol based on learning goals are unlikely to be self-directed learners. The successful self-directed learner develops the ability to determine and evaluate the sources of information as well as the reliability, validity, and meaning of information (including theories and other explanations) (Long, et al., 1989, p. 2).

Self-awareness

The successful self-directed learner has the ability to be aware of 'self'. This attribute is closely related to some of the executive processes identified with metacognition. It enables individuals to be aware of their learning processes, of their weaknesses and strengths, to know: if they can gain additional powers of concentration; of their ability to use a different approach how and what is distracting in their environment; the importance of a given learning activity; and to know when they need assistance. It also enables them to have a realistic perception of their ability to achieve their learning goal.

In order to be trained to be self-directed learners, certain types of skills were introduced in this study since such skills put emphasis on learner's ability and the way learners should bring out their inner talent in their learning. Such skills include: goal setting skill, processing skill, cognitive skill, executive skill, decision-making skill and self-awareness (Long, , 1989, p. 2).

Lack of support

It is not easy to implement self-directed learning if, in a given context, everything is not well prepared for the change (Long, et al., 1989, p. 2). Educators have found that some adults are incapable of engaging in self-directed learning because they lack independence, confidence, or resources. Not all adults prefer the self-directed option, and even the adults who practice self-directed learning engage in more formal educational experiences such as teacher-directed courses (Brookfield, 1985).

While Brocket & Hiemstra (1991) maintain that the lack of support for self-directed learning is the result of a lack of appreciation for the potential of the approach, others argue the case, both for and against, based on the effective utilisation of institutional resources. For instance, both Garrison (1997) and Hughes (1999) relate increasing interest in self-directed learning to the financial concerns of educational institutions. In fact self-directed learning has been introduced as a means of saving educational costs. However, Taylor (1997) suggests that curricular time constraints and the need to satisfy statutory learning outcomes are responsible for the persistent implementation of traditional teaching and learning approaches. Taylor's assertion, in respect of the teaching and learning approaches adopted, is supported by the research of Camiah (1998) who found tutors perpetuating didactic approaches rather than encouraging student participation.

Thus, it is clear that a self-directed learning approach has many in-built constraints. As long as the concept is implemented in the right direction under the support of any institution, this kind of teaching may gain the value in itself.

Features of self-directed learning application

When applying self-directed learning, a number of factors need to be considered. These include both internal and external factors, construction of knowledge, students' preferred teaching characteristics, behaviours and

approaches to teaching, students' preferred teaching characteristics as related to their own characteristics, students' preferred teaching characteristics as related to their approaches to learning, disciplinary differences in students preferred teaching characteristics as related to their approaches to learning and assuming responsibility for students' learning.

External and internal factors

External factors

First of all, a wide variety of factors are identified as being influential on both learner willingness and ability to engage in self-directed learning. These factors are characterised as being either internal or external to the actual process of self-directed learning. The influence of educational institutions is perceived as external to the self-directedness of learners, through the provision of appropriately-structured learning environments, the implementation of relevant teaching and learning strategies, and access to suitable resources (Bockaerts, 1997). Despite acknowledgement of the effectiveness of certain strategies in the facilitation of self-directed learning, educational institutions often fail to identify the structure of the learning environment, strategies that will be used, or the resources available to support the process (Bell College, 1997; Queen Margaret College, 1996).

The approaches recommended to facilitate self-directed learning generally reflect the student-centred nature of the process, e.g., self-paced modules, independent study, and distance learning (Brockett & Hiemstra, 1991). Martin (1996) maintains that specific media and the learning variables and strategies used within the instruction can be manipulated to facilitate and encourage the learner toward greater independence. Indeed, the research conducted by Camiah (1998) the term 'facilitating learning' was implicitly viewed as the ability of tutors to use open, flexible, and computer-assisted learning. Given the increasing range and access to educational resources as a result of technological developments, there are a great many avenues available for self-directed learning (JISC, 1995). However, despite these

positive advances, educational institutions have neither adopted nor implemented the new technology effectively (Business Higher Education Round Table, 2001).

Internal factors

The internal factors in self-directed learning are reported to relate specifically to the learner in terms of their preferred learning style, personality traits, motivation, and readiness to accept responsibility for their own learning (Garrison, 1992).

Influenced by research, a number of models have been developed that not only reflect the individuality of the learner but also seek to accommodate it within the learning process. Three specific examples of these are: the personal responsibility orientation (PRO) offered by Brockett & Hiemstra (1991) which differentiates between the instructional processes and methods of self-direction, and the personality characteristics of the individual; the Staged Self-directed Learning Model (SSDL) developed by Grow (1991), which proposes that learners advance through stages of increasing self-direction, and the Partnership Model proposed by D'A Slevin & Lavery (1991), which identifies and focuses upon various levels of control over the learning process.

It is generally accepted that self-directing students must assume a 'degree' of control over the learning process. Taylor (1997) states that if self-directed learning is the goal then an entire set of assumptions about the ways teachers and learner relate to each other have to be reoriented to affect a change in how self, others, authority, and knowledge are understood (Taylor 1997).

Negotiated learning contracts are considered one of the most effective methods of achieving this balance as it is the product of collaboration between the teacher and learner and is thought to negate many of the difficulties associated with the process of self-directed learning, e.g. wide-

ranging abilities, experience, education, and motivation (Knowles, 1990). The document can also be developed to address the individual needs of the student and the educational requirements of further and higher institutions, primarily, through the identification of learning needs, learning objectives and outcomes, learning strategies and resources, and methods of assessment and evaluation of the learning experience (McAllister, 1995). Within the Partnership Model, learning contracts are a predominant feature (D'A Slevin & Lavery, 1991).

Self-regulation is the ability of the learner to control interest, attitude, and effort toward a task or a goal. The key to self-regulation is the ability of the learners to understand the requirements of the task or goal, and then to monitor and adjust this effort without reminders, deadlines, or cues from others such as teachers, peers, or parents.

The efficacy of self-directed learning is an important consideration when dealing with the education of adults. Marsick (1985) points out that some institutions, especially inflexible institutions of higher learning need to provide the environment necessary to allow self-directed learning to take place.

Lowry (1989) has assembled a sizable list of suggestions to assist in modifying style and content of both instructional methodology and institutional environment in order to enable self-directed learning better to take place. A partial list of her suggestions, directed towards adult educators, is contained in Figure 2.1 below. Since self-directed learning emphasizes the learning of individuals who are to take their own responsibility, the teacher should become passive while learners are 'active' in order to enhance the learning process of self-directed learners.

To conclude, both external and internal factors influence self-directed learning. External factors can be controlled by institutions and the system. Internal factors, which are important, lie within the learners themselves. In

FIGURE 2.1 SUGGESTIONS FOR ADULT EDUCATORS TO FACILITATE SELF-DIRECTED LEARNING

SELF-DIRECTED LEARNING

Suggestions for Adult Educators

Help the learner identify the starting point for a learning project and discern relevant modes of examination and reporting.

Encourage adult learners to view knowledge and truth as contextual, to see value frameworks as cultural constructs, and to appreciate that they can act on their world individually or collectively to transform it.

Create a partnership with the learner by negotiating a learning contract for goals, strategies, and evaluation criteria.

Be a manager of the learning experience rather than an information provider.

Teach inquiry skills, decision making, personal development, and self-evaluation of work.

Help learners develop positive attitudes and feelings of independence relative to learning.

Recognize learners' personality types and learning styles.

Use techniques such as field experience and problem solving that take advantage of adults' rich experience base.

Encourage critical thinking skills by incorporating (into class) such activities as seminars.

Create an atmosphere of openness and trust to promote better performance.

Behave ethically, which includes not recommending a self-directed learning approach if it is not congruent with the learners' needs.

Adapted from Lowry (1989)

particular, the different personality traits of learners will significantly influence which self-directed learning approach will enhance learning to the greatest extent. For educational institutions and employers engaged in providing self-directed learning experiences, they should, according to Lowry (1989):

- have the faculty meet regularly with panels of experts who can suggest curricula and evaluation criteria;
- conduct research on trends and learners' interests;
- obtain the necessary tools to assess learners' current performance and to evaluate their expected performance;

- provide opportunities for self-directed learners to reflect on what they are learning;
- promote learning networks, study circles, and learning exchanges
- provide staff training on self-directed learning and broaden the opportunities for its implementation.

Construction of Knowledge

Lowry (1989) points out that the successful learner can link new information with existing knowledge in meaningful ways. Knowledge widens and deepens as students continue to build links between new information and experiences and their existing knowledge base. The nature of these links can take a variety of forms, such as adding to, modifying or reorganizing existing knowledge of skills. Unless new knowledge becomes integrated with the learner's prior knowledge and understanding, this new knowledge remains isolated, cannot be used most effectively in new tasks, and does not transfer readily to new situations. Educators can assist learners to acquire and integrate knowledge by a number of strategies that have been shown to be effective with learners of varying abilities, such as thematic organisation or categorising. The six steps are as follows (Lowry, 1989):

1. activities prior to the first session (e.g. developing a rationale, pre-planning);
2. creating a positive learning environment (physical, social, and psychological);
3. developing the instructional plan (with active involvement of participants in assessing personal and relevant group needs, ascertaining the relevance of past experience, and prioritizing;
4. identifying the learning activities (determining learning activities and techniques);

5. putting learning into action and monitoring progress (formative evaluation);
6. evaluating individual learning outcomes (matching learning objectives to master).

This theory suggests that meaningful learning takes place when the learner relates new material in a substantive fashion to an already existing cognitive structure. Lowry (1989) points out that

> What we learn in school and in daily life is retained in our cognitive structure as a framework of interconnections between ideas, skills, procedures, facts, and other types of information. When new learning occurs, this existing framework influences what we pay attention to, how we perceive and interpret new information, and the degree to which it is processed. Thus, it requires the participation of the learners.

This theory implies that most students cannot learn effectively by being passive listeners, and they do not simply record and store what they are taught. Rather, they learn well only when they: are active in the learning process; construct their own understanding; use what they are taught to modify their prior knowledge. In this process, they develop their own interpretation of the material presented to create a theory that makes sense to them. They then connect the new knowledge with the personal knowledge structure that they construct.

A second group of researchers (Biggs, 1979; Entwistle & Ramsden, 1983; 1990; Marton & Saljo, 1976; Ramsden & Entwistle, 1981) distinguish three main student approaches to the study process, each of which includes an affective (motivational) component and a cognitive component, with the cognitive component envisaging the behavioural realization of the motive. These three approaches are as follows:

1. The surface approach, consisting of external motivation and surface learning strategies.

2. The deep approach, consisting of internal motivation and deep e-learning strategies.
3. The organized/strategic approach, consisting of an achievement-oriented/competitive motivation and strategic-learning strategies.

To elaborate on these approaches: a deep approach stems from an intention to establish personal understanding of the material presented. To do this, the student must learn meaningfully by interacting critically with the content, relating it to previous knowledge and experience, as well as examining evidence and evaluating the logical steps by which conclusions have been reached. In contrast, a surface approach involves the sole intention of satisfying the perceived requirements of the lecturer, which are seen as external impositions, remote from personal interests. The surface approach can still be active, but it relies on identifying the elements within the task most likely to be assessed in an exam, and then memorizing that information through rote learning strategies. A strategic approach stems from the intention to compete with peers in order to attain better grades. It involves orienting the study methods to succeed in the particular type of exams that the particular teacher assigns and to use study time efficiently.

A third group of researchers (Pintrich et al., 1991) separated the motivational from the cognitive components of academic performance, a separation which is reflected in the models of student approaches to learning that they developed.

Students' preferred characteristics, behaviours and approaches to teaching

A self-directed learning approach focuses the individual's responsibility and learners need to find their own way to study. This section provides students' preferred characteristics, behaviours and approaches to teaching. Knowledge of students' preferences for teaching methods, characteristics, and behaviours

is important as their perceptions and interpretations of the academic environment, rather than the environment in any objective sense, affect their approaches to studying most directly; this, in turn affects their learning outcomes (Entwistle, 1987). Entwistle & Tait (1990) suggested that ascertaining students' perceptions of and preferences for their academic environment and teacher characteristics can serve faculty in selecting appropriate teaching strategies and in structuring the academic environment to serve better the students' learning needs.

Students' preferred teacher characteristics and behaviours can be inferred by analysing the ratings of their own teachers at the end of a course. Studies of this type found that students prefer teachers who are clear, interesting, organized, and well prepared, and perceive these characteristics as contributing most to good teaching and to their success in learning.

Hativa & Birenbaum (2000) identified university students' preferences for teacher characteristics in a general way that was unrelated to a particular teacher. They asked undergraduate students to rate their preferences for more than 80 listed teacher classroom behaviours. Factor analysis clustered the preferred behaviours into four teacher type categories: the provider, the self-regulation promoter, the good communicator, and the information transmitter:

1. The information-transmitting instructor describes a lecturer whose main objective is the coverage of material, demonstrating no concern or awareness of the student population attending the particular class.
2. The well-communicating instructor describes a teacher, primarily a lecturer, who presents the material in a clear, well-organized, and engaging manner.
3. The providing instructor describes a teacher who promotes students' collaboration during learning, through small groups or even pairs, encourages students to seek help when they need it,

provides a supportive learning environment, helps them concentrate, and guides students in resource management and effective study methods.

4. A 'self-regulation promoting instructor' describes a teacher who requires and advances critical thinking and material integration, promotes active learning, assigns tasks that require self-regulated learning, and demands effort from students.

Students' preferred teacher characteristics as related to their own characteristics

As we have seen, students differ in their approaches to studying and in their learning styles and strategies. Similarly, research studies have identified differences in university teachers' approaches to teaching as well as methods and styles in teaching. Thus, if we want to find out how to teach in a way that helps students learn effectively, we need to identify the relationships between, on one hand, students' approaches to studying, or their leaning styles and characteristics; and, on the other hand, their preferences for teacher characteristics.

Indeed, preferences for a particular teaching style or other teacher characteristics were found to interact with a variety of student characteristics and learning styles, such as cognitive style, personality, and hemispheric dominance (Entwistle, 1990). Teachers' attitudes toward education were found to match students' preferred teaching styles (Kerlinger, 1966). Tetenbaum (1975), for instance, found that students' specific social-psychological needs in learning were related to their ratings of teachers whose style was consistent with their needs. Later, Emanuel & Potter (1992) identified relationships between students' approaches to learning and their preferences for teacher communication styles.

Using numeric approaches, several aptitude-treatment interaction studies have shown that congruence between students' preferred teaching characteristics and their learning-related characteristics increased student

achievement and satisfaction from instruction. To illustrate, Domino (1968, 1971) showed that students' achievement orientation interacted with the teaching style to which they were exposed. Students who gained high scores on a particular achievement orientation performed better academically and reported greater satisfaction from their studies when taught in a manner consonant with their achievement orientations than when taught in a manner dissonant with these orientations. Then, Pask (1988) showed that when a teaching style was quite similar to the students' learning style, students learned more easily and effectively than peers whose learning style mismatched the teaching style.

Students' preferred teacher characteristics as related to their approaches to learning

Several studies suggest that students' approaches to learning per se are related to their preferences for certain teaching characteristics and behaviours. For example, students who adopt deep approaches to learning show a clear preference for an environment which is likely to promote understanding, while those with a surface approach prefer situations which are thought to facilitate rote learning (Entwistle, 1987, p.187). Similarly, students' main goals or motivation for learning correspond with their preferences for different kinds of teaching (Entwistle, 1990, p. 9):

> Students whose main concerns are narrowly vocational, want the lecturer to provide only the minimum required to pass the examination, and to present that in the most straightforward way. In contrast, students whose concerns are more academic want to be challenged intellectually, and to be encouraged to read widely to supplement lectures.

Hativa & Birenbaum (2000) found that undergraduate students preferred teaching approaches that best suited their own learning approaches and that those students with particular needs in learning preferred teachers who accommodated those needs. The information-transmitting instructor was not preferred by all students because this approach in teaching overlooks

specific learning needs. For example, students with high extrinsic motivation (who learn for the sake of the grade) and with low critical thinking, prefer the information-transmitting instructor, whose clarity and organization help them achieve their goal of obtaining good grades, without too much thinking effort. Students with a high level of test anxiety, who need much encouragement and help in their learning, and who do not feel safe in employing their own critical thinking, prefer an instructor who nurtures, encourages and supports their learning. Finally, students with high intrinsic goal motivation and low intrinsic goal motivation preferred the self-regulation-promoting instructor, who put high demands on their learning, promoted critical thinking and materials integration, and required self-regulated learning and effort investment.

Disciplinary differences in students' preferred teaching characteristics as related to their approaches to learning

There is ample evidence that students' preferred teaching characteristics are influenced by contextual factors such as the discipline they study (Feldman, 1989a; Hativa & Marincovich, 1995). These discipline-related differences in teaching and learning have been identified in research. Students tend to study in academic disciplines that suit their approach to learning and personal characteristics, and in the course of their studies they adapt themselves to the discipline's specific needs or modes of thinking and learning (Entwistle & Tait, 1990). Good teaching is also differentially evaluated in different disciplines (Feldman, 1989; Hativa & Marincovich, 1995; Jones, J., 1981). Therefore, teachers should be aware of the diversity in their students' learning approaches with respect to the different academic disciplines, and of the need to accommodate these differences in adopting a teaching style.

Assuming responsibility for students' learning

Kember's (1997) study identifies differences in teachers' perceptions of who should assume the main responsibility for student learning. The two extreme approaches to teaching (i.e., those of imparting information and conceptual

change) delegate this responsibility mainly to the students whereas the other approaches (i.e., those of transmitting structured knowledge, student-teacher interaction, and facilitating understanding) place the responsibility mainly on the teacher. Hativa & Birenbaum's (2000) study suggests that students prefer good communicators and the providing teachers who assume a major role in the responsibility for student learning to the other teacher types who delegate this responsibility mainly to the students.

Hativa (2000) found that when the question of responsibility referred to students' success in learning in courses of a particular law school, both faculty and students put the main responsibility on the teacher and perceived students' responsibility to be of lower extent. However, when the question of responsibility referred to students' failure in learning the course material or on course tests, faculty gave high ratings to four reasons related to the students' behaviours and low ratings to two reasons related to themselves as teachers. In contrast, students gave low ratings to all four reasons related to themselves, whereas they rated high the two reasons related to teachers. The differences between faculty and students' ratings on each of the six reasons were significant. Thus, we may conclude that in general, faculty assume responsibility for students' success in learning in the course but they deny their role in students' poor success or failure, and blame those results on students' problematic behaviours. In contrast, students feel just the opposite.

Supporting characteristics of self-directed learning

According to Moore (1986), a number of scholars (e.g., Boyd, 1966; Knowles, 1970) have described autonomous learning as especially characteristic of learning in adulthood. Since children tend to have a self-concept of dependence, it is natural for them to look to adults, including teachers, for reassurance, affection and approval. They are usually willing to follow a teaching program, regardless of its congruence with any learning programs of their own, merely to win the approval and affection of the teacher.

Adults, on the other hand, have a self concept characterized by independence. In most aspects of their everyday lives they believe themselves capable of self-direction and they are also capable and willing to be self-directed. Their need to maintain control over their learning brings us to the central concept of adult education: basically, adults who are self-directed in life also prefer to be self-directed in their studies. They hate to be treated like children, and they learn better when assignments are flexibly organized around basic criteria to allow personalization.

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Instructors, generally, should manage the processes, not the content; however, adults returning to the classroom are not always aware of their need to be self-directing and often start out expecting to be treated like children. The attitude, though, is rarely beneficial. An adult instructor, then, must be ready to facilitate their transition to self-directedness; furthermore, being self-directed does not always mean that adults are self-motivated or willing to engage in self-teaching especially when studying an unfamiliar subject. (Curtis Kelly, 2004). Thus, teachers nowadays have to consider the way adults learn and how to motivate them to learn. Knowles, in Lieb (1991), identifies the characteristics of adult learners as being autonomous and self-directed. They need to be free to direct themselves. Their teachers must actively involve adult participants in the learning process and serve as facilitators for them. Specifically, they must get participants' perspectives about what topics to cover and let them work on projects that reflect their interests. They should allow the participants to assume responsibility for presentations and group leadership. They have to be sure to act as facilitators, guiding participants to their own knowledge rather than supplying them with facts. Finally, they must show participants how the class will help them to reach their goals (e.g. via a personal goals sheet).

Merriam (2001) has conducted extensive studies into adult learning particularly regarding what makes adult learning unique from learning typically directed toward younger learners. In addressing the topic of andragogy, she (Merriam, 2001, p. 5) characterizes the adult learner as

someone who: has an independent self-concept and who can direct his or her own learning; has accumulated a reservoir of life experiences that is a rich resource for learning; has learning needs closely related to changing social roles; is problem-centred and interested in immediate application of knowledge; is motivated to learn by internal rather than external factors.

Self-directed learning has many characteristics that support the individuals to learn successfully on their own; namely:

- individual learners can become empowered to take increasingly more responsibility for various decisions associated with the learning endeavour;
- self-direction is best viewed as a continuum or characteristic that exists to some degree in every person and learning situation;
- self-direction does not necessarily mean all learning will take place in isolation from others;
- self-directed learners appear able to transfer learning in terms of both knowledge and study skill from one situation to another;
- self-directed study can involve various activities and resources, such as self-guided reading, participation in study groups, internships, electronic dialogues, and reflective writing activities;
- effective roles for teachers in self-directed learning are possible, such as dialogue with learners, securing resources, evaluating outcomes, and promoting critical thinking;
- some educational institutions are finding ways to support self-directed study through open-learning programs, individualized study options, non-traditional course offerings, and other innovative programs.

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In the context of andragogy, self-directed learning is defined by Garrison (1997, p. 18) as:

> an approach where learners are motivated to assume personal responsibility and collaborative control of the cognitive (self-monitoring) and contextual (self-management) processes in constructing and confirming meaningful and worthwhile learning outcomes.

Garrison (1997, p. 21) elaborates further by describing self-direction as being essential if students are to achieve Dewey's (1916) ultimate educational goal of becoming continuous learners and possessing the capacity for further educational growth. Self-directed learning, according to Knowles (1975, p.16-17) is

> a process in which individuals take the initiative, with or without the help of others, to diagnose their learning needs, formulate learning goals, identify resources for learning, select and implement learning strategies, and evaluate learning outcomes.

Brockett & Hiemstra (1991) view the term self-directed learning as an instructional process centring on such activities as assessing needs, securing learning resources, implementing learning activities, and evaluating learning. Hiemstra & Sisco (1990) refer to this as individualizing instruction, a process focusing on characteristics of the teaching-learning transaction. They believe that students at tertiary level should be encouraged to be independent learners since they are mature enough to use their life experience in their learning. Besides, it is necessary for those students to be trained to practice their own skills with the experience before they graduate and enter their chosen profession.

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Evaluation in English language teaching

English courses have been offered to students in Thai universities for many years. To identify whether such courses are successful requires course evaluation. There is growing demand for accountability and increasing importance for evaluation in foreign language education. It is a serious,

professional concern to the benefit of everyone involved in language education (Marcinkonien, 2005).

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Theoretical Background

There are many models of evaluation that can be used in any curriculum. One that has been widely used is Tyler's approach which involved comparing intended outcomes and actual outcomes. Many researchers have been influenced by his approach. Its drawback, however, was that it ignores process, because what happens during the course of a program is assumed to be irrelevant (Tyler, 1967).

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Models of evaluation

A major 'model', *The Countenance of Evaluation*, was proposed by Stake (1967, 1975); within this model there is no prearranged evaluation design. Stake recommends 'picking up on whatever turns up'. The model involves descriptive and judgemental data. The descriptive element examines compliance between intended and observed, whereas the judgmental element refers not to the judgment of the evaluator, but to that of parents, teachers, students, or subjects, or subject matter experts.

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Another approach called CIPP (Content, Input, Process, Product) was introduced by Stufflebeam (1980). The main aim of this was to provide information for decision-makers. The 'process' part here is focused on observation, interviews, diaries, etc. while the 'product' part determines whether the objectives were achieved or not. 'Content' evaluation analyses actual and desired simulation. 'Input' evaluation shows to what extent the evaluator provides assistance in program design. Content and input also relate to the resources etc. Invested in the program.

Parlett & Hamilton (1977) introduced the concept of 'illuminative' evaluation, similar to CIPP model. Here no 'product' is of any interest; 'process' is all. Typically there are three stages: observations, further inquiry

and explanation. Scriven (1972) had similarly proposed 'goal free' evaluation where the evaluator pays no attention to the stated goals but examines what actually is happening, and it is claimed that the value of a program is in its correspondence to the needs of the students. Eisner's (1985) concept was called 'educational connoisseurship' with no quantitative data collected; instead, data was amassed through observation. Eisner's concept stems from the belief that life in the classroom is a matter of a teacher's individual artistry rather than a set of behavioural laws.

Language learning evaluation

During the 1960s there was a great deal of research on second language education evaluation. Works of Campbell & Stanley, Cronbach, Keating, Stern, Freedman, and Smith, referred to in A. Beretta's *Evaluation of language education: An overview* (Beretta, 1992) during that time contributed to the growth of importance for evaluation.

Then the use of language laboratories came into being and they became places for evaluation. In these settings audio-lingual teaching was compared with the cognitive code, although vague monitoring description resulted in poor and unreliable outcome results. It seems that large evaluations of the 1960s were disappointing. The concept of evaluation was inadequate to demands as the findings were virtually uninterpretable.

Rossi & Freeman's study (1985) was to establish which of the rival set of language teaching methodologies was most successful. Beretta's study (1986) was to compare the value of effects of innovative approaches, and later to provide information that might be useful to anyone interested in implementing similar approaches.

The purpose of Palmer's study (1992) was to show whether a particular theory of language learning was correct. Mitchell's study (1992) was to discover whether a particular approach to bilingual education should be continued and extended. The purpose of Coleman's study (1992) was to

establish whether the needs of a group of students have been met by a particular innovation. Alderson and Scott's study (1992) was aimed at identifying the effects of a particular approach to second language education and informing about the decisions on its future nature.

Broadening evaluation

A most important point is made by Nunan (1991) who argues that evaluation implies a wider range of processes than assessment, which covers only the processes and procedures determining what learners have mastered in the target language. 'Evaluation then is not simply a process of obtaining of information; it is also a decision-making process' (Nunan, 1992).

Bretta (1992, p.26) went further by extending evaluation to include accountability. He pointed out that standards of evaluation are required in order that evaluation is accountable in the area.

> Principles for undertaking evaluation were determined by four attributes – utility, feasibility, propriety and accuracy. Utility standards relate to the duty of an evaluator to find out who are the stakeholders and provide them with relevant information on time. The feasibility standards require evaluators to ensure that the evaluation design is workable in real world settings. The propriety standards demand that the evaluator behave ethically and recognize the rights of individuals who might be affected by the evaluation. The accuracy standards are concerned with the soundness of evaluation, requiring that information be technically adequate and the conclusions are linked logically to the data (Beretta, 1992).

Aims of evaluation

Typically, some of the 'official' aims of evaluations are as follows:

- To decide whether the course has had its intended effect.
- To identify what effects the program has had.
- To justify future courses of action.
- To compare approaches/textbooks/etc.

- To show positive achievements of teachers and pupils.
- To motivate teachers.

A Proactive Evaluation for the English for Architecture Program

Program evaluation can be classified conceptually into five categories (Owen, with Rogers, 1999) as follows:

Proactive Evaluation

Evaluation within this form takes place before a program is designed. It assists program planners to make decisions about what type of program is needed. The major purpose is to provide input to decisions about how best to develop a program in advance of the planning stage.

Clarificative Evaluation

Evaluation within this form concentrates on clarifying the internal structure and functioning of a program or policy. This is sometimes described as the theory or logic of a program. It refers to the casual mechanisms which are understood to link program activities with intended outcomes.

Interactive Evaluation

Interactive evaluation provides information about delivery or implementation of a program or about selected component elements or activities. It can be concerned with the documentation or incremental improvement of an innovation, or establishing what is happening to help staff to understand more fully how and why a program operates in a given way.

Monitoring Evaluation

Typically, monitoring is appropriate when a program is well established and ongoing. The program may be on a single site or it may be delivered at several sites, remote from senior management. The evaluation may involve

the development of a system or regular monitoring of the progress of the program. Quantitative performance indicators are used as the means of organizing data in monitoring evaluations.

Impact Evaluation

Impact evaluation is used to assess the impact of a settled program. It assumes some logical end-point analysis, e.g., establishing the outcomes of a completed adult education remedial reading program, or a program designed to teach basic skills in an on-the-job apprenticeship.

This study adopted a Proactive Evaluation to identify whether architecture students prefer a self-directed learning approach. Since the English for Architecture Program had been taught for more than six years, there was a need for change in the English for Architecture Program. The existing course had caused problems for both teachers and students in terms of teaching and learning. A self-directed learning approach was being introduced since it is believed that it could serve the needs of both teachers and students in the context.

As mentioned earlier, the purpose of a Proactive Evaluation is to provide input to decisions about how best to develop a program as an early part of the planning stage. Thus, a Proactive Evaluation was most suitable in this context since was able to reveal the needs of both teachers and students. Such needs would then be used as part of the data for the implementation of a self-directed learning approach.

Conclusion

This study was intended to explore a way of teaching that is new to Thailand: namely, self-directed learning. ‘Self-directed learning’ is not a new approach since its name was discussed and mentioned in the early 1920s. There have

been many studies regarding self-directed learning. The most important thing, with respect to this study, is the learner's role: learners need to be more dependent and responsible. At the same time, teachers themselves need to realize their role. In the Thai context, where students are treated as passive students all the time, there is an urgent need for change. It can be concluded that internal factors, especially learners' personality and traits, have an important role in learning; however, such factors can be encouraged provided appropriate knowledge and skills have been constructed and enhanced for these learners. Ultimately, whatever the preferred practice of teaching the teachers use in the classroom, the learners will have to assume responsibility for much of their learning in order to become independent.

An evaluation was chosen as a necessary part of this study since there was clearly a need for a change in the existing program. A Proactive Evaluation was chosen to serve best the purpose of the study. Such an evaluation is needed when change is required; it is used before any change is implemented. In particular, for this study, it was able to provide information about what kind of teaching practice should be chosen when self-directed learning is to be implemented.

CHAPTER 3

Methodology

Introduction

This study aimed to examine whether or not self-directed learning might be applied in the English for Academic Purposes program for architecture students at Chulalongkorn University, Thailand. Since the English for Academic Purposes program had been taught for five years without any changes, this study intended to find out problems of the existing program and possibilities for a new program before any changes were made.

A Proactive Evaluation was chosen for the study since the English for Academic Purposes program for architecture students needed to change in order to deal with the contemporary situation and to inform changes in the English language teaching policy within the Architecture Faculty.

There are two major situations to which a Proactive Evaluation is logically applied and is most suitable for this situation (Owen, with Rogers, 1999). The first is in a 'nothing to something' situation when the aim of the evaluation is to provide findings to aid decision-making about a new program. This study aims to carry out the program evaluation with something new 'self-directed learning' in order that the findings may help the educators, teachers and policymakers decide for the budget. In the second, a program exists but there is a need for a major review, with the likelihood that this existing program will be altered radically or even replaced by a new and

more appropriate one. Thus, it can be seen that Proactive Evaluation can support the changing context in terms of teaching and learning.

The study required three steps: one, a research review; two, a needs assessment; three, the formulation of policy guidelines for changes to the teaching of English for Academic Purposes.

The main research question in the study was as follows:

- What are the essential elements of a self-directed English language program for architecture students at Chulalongkorn University, Thailand?

Related sub-research questions were:

- What teaching styles and modes of delivery need to be included in the design of a successful self-directed English language program for architecture students?
- What are the benefits of self-directed learning in the teaching and learning of English to second-year architecture students?
- What kind of materials and content do architecture students require, and prefer, in order to experience success in English?

Research Design

This study aimed to identify whether a self-directed learning approach could be successfully applied in the English for Academic Purposes program for second-year architecture students. The English for Academic Purposes program for second-year architecture students had been in existence for more than five years without change. Thus, before implementing any changes, a Proactive Evaluation was chosen in this study to identify the needs of students and teachers in order that the program planners could make decision about what type of program would best suit the current conditions. The information gained from this study was then to be used to provide policy

guidelines for the development of a new program, thus assisting the program planners in making decisions about what type and nature of the program to be provided.

The study employed both quantitative and qualitative methodologies in order to obtain the data required for the needs assessment. A research review, undertaken in the first phase, aimed to identify the approaches of current practice in learner-centred learning in the teaching of English. Key methodologies concerning the teaching of English – namely, materials, resources and teaching and learning style – were identified and clustered according to common characteristics. This involved identifying the key characteristics of each methodology and clustering them according to common characteristics. These clusters provided the basis for the design of the questionnaires that were used in Phase 1 and Phase 2 of the study with teachers and students.

Teachers in the Science and Technology Department (N=20) at Chulalongkorn University Language Institute (CULI) were surveyed using a Likert-type questionnaire to determine their preferences for each key methodology cluster. A random sample of six of these teachers was invited to participate in a semi-structured interview in order to explore more deeply their individual preferences. The resulting data were used to identify, amongst the staff at CULI, a preferred learner-centred teaching practice in English for architecture students.

The students' needs assessment was carried out by means of questionnaires completed by first-year architecture students from Chulalongkorn University at the beginning and at the end of a Foundation English language program. The second questionnaire was followed-up by semi-structured interviews of a stratified sample of the first-year students who had responded to both sets of questionnaires.

Selection of Participants

The participants in the study comprised two groups. The first group consisted of all first-year architecture students who had studied a Foundation English program in their first semester at Chulalongkorn University. The second group consisted of teachers with more than five years' experience from the division of English for Science and Technology, Chulalongkorn University. This group had considerable experience of the Foundation English program. It was expected, therefore, that they had a balanced view of its many aspects. The profile of the student participants, shown in Figure 3.1, was as follows:

- In terms of age, all participants were first-year students and the age were between 17 and 18 years-of-age.
- With regards to *gender,* 100 were males and 20 were females.
- The 20 teachers involved had a wide-range of teaching experience, as shown in Figure 3.2. Two participants had been teaching English for only five years, ten participants had been in the profession for six to 15 years, and eight participants had been English teachers for 16-20 years.

FIGURE 3.1 GENDER OF PARTICIPANTS

Gender	Number of participants
Male	100
Female	20

FIGURE 3.2 NUMBER OF YEARS OF TEACHING AT CULI

Number of years	Number of teachers
5 years	2
6-15 years	10
16-20 years	8

All participants – both students and teachers – had completed consent forms prior to participation in the research and had had the significance of the study explained to them. They were also informed that they could withdraw from the study any time during their participation, if they so desired. Details of these documents are contained in Appendices A and B.

Overview of Proactive Evaluation

The design for the study follows that of a Proactive Evaluation (Owen, with Rogers, 1999, pp. 170-189). A Proactive Evaluation is concerned with the following issues

- Is there a need for the program?
- What do we know about this problem?
- What is recognized as best practice to find solutions to this problem?
- Have there been other attempts o find solutions to this problem?
- What does the relevant research tell us about this problem?
- What could we find out from external sources to rejuvenate an existing policy or program?

Such an evaluation is normally carried out before a program is developed, and the focus is on the program context. As has been previously pointed out (Owen, with Rogers, 1999, p. 171), a Proactive Evaluation usually consists of three major approaches: needs assessment, research review and review of best practice to establish benchmarks. In this research only the first two approaches were used, namely, a research review and a needs assessment. The methodology used in each approach will be described in the following sections.

Part 1: Research Review

One of the major approaches of a Proactive Evaluation is research synthesis. According to Owen, with Rogers (1999, p.42):

> This approach involves the synthesis of what is known about the problem from what is sometimes described as 'funded knowledge'- the knowledge developed through research and other scholarly enquiry. This generally involves the use of library facilities and ways of focusing the review on the most relevant literature. The research review is an opportunity for the aggregated work of pure and applied research to impact on social and educational planning. As such, evaluation of this nature bridges the gap between the work of the research community and practitioners.

The research review in this study was concerned with a review of self-directed learning.

Part 2: Needs Assessment

A needs assessment of all 120 of the first-year architecture students engaged in the Foundation English language program was undertaken during Semester 2, 2003-4. This sought the following information:

1. **What were the views of the students**

   - regarding the current method (teacher-centred) of teaching English?
   - regarding the desired method (learner-centred) of teaching English?

2. **What discrepancies existed between the current and the desired methods of teaching English?**

3. **What were the reasons for any discrepancies?**

4. **What needs existed (the difference between the desired and the current method of teaching English), and which of these needs**

needed to be given priority of action treatment in a revised English language program?

The needs assessment, which occurred in three phases, had both a quantitative and a qualitative aspect: the first and second phase was used quantitative methods to obtain date; the third phase used qualitative methods to obtain data.

Needs Assessment, Phase 1

In this phase, all 120 students and 20 teachers were asked to respond to a Likert-style survey questionnaire which was basically designed to elicit their views on the role of teachers, materials preparation, skills, preferred teaching practice and evaluation regarding self-directed learning.

Questionnaire design

The questionnaire was developed primarily from an extensive research of relevant literature and was designed to elicit the students' and teachers' ideas, needs and attitudes in relation to self-directed learning.

As will be reported in the next chapter, the research review indicated that self-directed learning focuses the learners' role and their learning style; as well, the role of teachers has to be changed with regard to the new way of teaching. Compared with the traditional way of teaching, self-directed learning tends to lessen the role of teachers and increase the role of students; furthermore, students are encouraged to use their own ability to achieve the goal and increase their proficiency.

Thus, the items in the questionnaires, contained in Appendix H, are divided into six main items regarding teaching and learning: role of teachers, role of students, materials, skills, preferred practice of teaching, and evaluation. Questions to be asked regarding role of teachers included whether teachers should have a dominant role in the classroom. Questions regarding the role of students included the independent study of students. Questions

regarding materials included the use of ready-made or tailor-made materials. Skills to be developed were divided into four skills when teaching English in the classroom. Questions regarding preferred practice of teaching included the use of computer technology and the emphasis on grammatical aspects in the classroom. Questions regarding evaluation included the distinction between group and individual evaluation. Responses were made on a 10-point Likert-style scale: from strongly agree to strongly disagree.

After the items had been constructed under the supervision of a group of experts, a pilot survey was undertaken with first-year students from the Faculty of Allied Health Science, Chulalongkorn University. Changes made as a result of the pilot survey were as follows:

1. **Role of teachers** – from 'teachers should be the manager in the classroom' to 'teachers should have the dominant role in the classroom'.
2. **Role of students** – from 'students study on their own' to 'students to be more independent in their learning'.
3. **Materials** – from 'ready-made materials'' to 'published texts or commercial texts'.

After the changes from the pilot survey had been made the questionnaires, copies of which are attached as Appendix H, were distributed to the subjects.

Data collection and analysis: students

The Phase I data collection commenced after the students had successfully completed the first Foundation English program undertaken in Semester 1, and just prior to the commencement of the second Foundation English program. All of the first-year students were asked to complete the questionnaires at home and to return them at the commencement of Semester 2. Out of the 120 first-year architecture students, 85 students returned their questionnaires – a return-rate of 70 per cent.

There were six clusters of items: role of teachers, role of students, material, skills, preferred practice of teaching, and evaluation. The Microsoft Statistical Package for Social Sciences (SPSS) for Windows v. 10 software was used to analyse the data. A total of 40 items were contained in the questionnaire. The means for each item were calculated and compared with the means of the staff: the differences between the staff means and the student means for each item were taken as a preliminary measure of need. Significant differences were noted and possible reasons for these differences were explored in the subsequent interview phase (Phase 3).

Data collection and analysis: staff

Twenty teaching staff belonging to the Division of English for Science and Technology were given the same questionnaire as that completed by the students (see Appendix H). Fifteen out of 20 questionnaires were returned – an acceptable return rate of 75 per cent. As for the students, the purpose of the questionnaire was to obtain the views of staff view regarding a self-directed learning approach to teaching English. The same five clusters of items were considered: role of teacher, role of student, skills, materials and evaluation. SPSS software was used to analyse the data.

The mean score and standard deviation for each item, of teachers' responses in the questionnaire were calculated and used to determine a rank-ordering of preference, from highest to lowest. Teachers' preferences were to be explored further in the semi-structured interviews of a sample of staff, standard data reduction techniques will be used to identify common preferences and these preferences were then to be matched against the outcomes of the original staff questionnaire. On the basis of these findings, a judgment would be made on the preferred learner-centred English teaching practice amongst the Science and Technology staff at CULI.

Needs Assessment, Phase 2: Survey

A second survey, undertaken at the end of Semester 2, was carried out to identify the opinions of the first-year architecture students following the completion the second Foundation English language program. The same questionnaire that was used in Phase 1 was used again in Phase 2. All students were required to complete the questionnaire and were asked to indicate whether or not they had returned the questionnaire distributed in Phase 1. In this way it was possible to identify, anonymously, the same 100 students who had been involved in Phase 1.

In Phase 2 (students, only), the mean scores for each item were calculated, as for Phase 1. Thus, the same measure was used to compare students' responses to each item from the beginning of the process to the end. The data obtained from the survey questionnaire were analysed quantitatively by means of the SPSS program and subsequently used to develop a general profile of needs.

Data collection and analysis: students

Differences between the outcomes of Phases 1 and 2 were used as indicators of discrepancies between desired and actual teaching and learning situation. These discrepancies were used to identify broad areas of need for the self-directed English language program to be undertaken in second year.

Students were given the same questionnaire twice – before and after entering English course. Using the same questionnaire provided results that were able to show discrepancies between the two phases. Each questionnaire used in the first phase was identified by a number prior to distribution to the students. In the second phase, students received a questionnaire with the same number as the one they had completed in the first phase. In this way the researcher could match the two questionnaires with the same student. Finally, the means and standard deviations of the responses for each student for the two phases were compared and analysed. The shift in responses that occurred

was taken as indicators of the preferences of students with respect to English language teaching.

Needs Assessment, Phase 3: Semi-structured interviews

A series of semi-structured interviews, using the areas of need identified following the Phase 2 survey as a focus for the questions, was undertaken with a sample of the students involved in Phase 1 and Phase 2 surveys, in order to clarify the actual needs that they had been identified by the researcher. Similarly, a series of semi-structured interviews, using the areas of need identified by the teachers following the Phase 1 survey, was undertaken with a sample of the teachers in order to clarify the desired needs that had been identified by the researcher. The questions asked of both students and teachers are contained in Appendix I. Semi-structured interviews were selected, as they allowed for a greater depth of meaning to emerge than is possible by using questionnaires, alone (Polit & Hungler 1999).

Two colleagues at Chulalongkorn University were asked to read the transcripts of the interviews and commented on the findings that had emerged from the study. They were asked to determine if they would have analysed, synthesized, and categorized the data in the same way that I had done. These colleagues also checked the transcripts of the audio-tape recorded interviews; they verified the accuracy and reliability of the transcriptions and their interpretation.

Data collection and analysis: students

The qualitative data collection, a key part of the qualitative research that was used in this study, provided a focus on understanding the meaning embedded in participant experiences through an open-ended, unstructured and subjective approach (Lincoln & Guba, 1985). Such research is most often conducted in a naturalistic setting with a purposive sample (Patton, 2002). The research tends to be holistic; descriptive and focuses on the depth and

details of experiences (Denzin & Lincoln, 1998). Data collection methods include interviews, observations, field notes, and documents to name a few (Wolcott, 1994). Creswell (1998, p. 15) indicates:

> Qualitative research is an inquiry process of understanding based on distinct methodological traditions on inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyses words, reports detailed views of informants and conducts the study in a natural setting.

Consistent with these principles, a stratified random sample of two second-year architecture students from each of the second, third and fourth quartiles determined from the analysis of the discrepancies undertaken in Phases 1 and 2 that had been used to indicate the students' preferred learning approach to English was identified. They were invited, by letter, to participate in Phase 3. The six students who accepted were interviewed, individually, by the researcher.

Data collection and analysis: teachers

A stratified random sample of six teachers with more than three years' experience in the program was personally invited by the researcher to participate in this phase. Two teachers from each of the second, third and fourth quartiles determined from the analysis of the discrepancies undertaken in Phase 1 were identified. Following their agreement to participate, the six teachers were interviewed by the researcher. The interviews were audio-tape recorded, transcripts made, and the data reduced using quantitative data-reduction techniques outlined by Denzin & Lincoln (2001) in order to determine the range of teaching and learning elements preferred and the background to this preference.

The views of teachers were sought regarding the use of a self-directed learning approach in the teaching of English – in particular, whether teachers found self-directed learning suitable for the students in the current context. The data obtained from the semi-structured interviews were analysed,

synthesized and categorized by means of standard qualitative data reduction methods. The transcripts were analysed into units of information which were placed on separate index cards. The index cards were subsequently coded and sorted according to situational factors (who, what, when, where, and why).

More importantly, the interview data were used to develop a framework of needs and attitudes toward the application of self-directed learning at tertiary level in the Thai context. The findings from both the survey questionnaire and the semi-structured interviews are presented in Chapter Four.

Maintenance of rigour in the study

This study involved use of a mixed-methodology, i.e., both qualitative and quantitative research approaches, which sought to understand the specific context; namely, the English for Architecture Program using self-directed learning approach to the teaching of English. Qualitative research uses a naturalistic approach that seeks to understand phenomena in context-specific settings, such as a 'real world setting where the researcher does not attempt to manipulate the phenomenon of interest' (Patton, 2001, p. 39). Thus, it would be best if the validity of the study can be pointed out. Creswell & Miller (2000) suggest that the validity is affected by the researcher's perception of validity in the study and his/her choice of paradigm assumption. If the validity or trustworthiness can be maximized or tested then more 'credible and defensible result'(Johnson, 1997, p. 283) may lead to generalisability which is one of the concepts suggested by Stenbacka (2001) as the structure for both doing and documenting high quality qualitative research.

The data obtained from the semi-structured interviews were used to establish the trustworthiness of the data obtained from the survey questionnaire through the process of 'triangulation'. Qualitative research

requires instruments to check on this trustworthiness; the process is called ‘triangulation’. Mathison (1988, p. 13) elaborates on this process:

> Triangulation has risen as an important methodological issue in naturalistic and qualitative approaches to evaluation (in order to) control bias and establishing valid propositions because traditional scientific techniques are incompatible with this alternate epistemology.

Patton (2001, p. 247) advocates the extensive use of triangulation; he points out that:

> triangulation strengthens a study by combining methods. This can mean using several kinds of methods or data, including using both quantitative and qualitative approaches.

A combining of methods was used in this study. First of all, questionnaires were used to collect information and followed by interview which was used to collect the details of the data. Multiple sources in the study helped identify and strengthen the information collected. First of all, data from the questionnaires were used and divided into clusters. Semi-structured interviews were used, employing parallel forms, and random samples from the same statistical clusters. Thus, information with enhanced details was able to be drawn from populations of both groups of population: students and teachers. This is yet another example of triangulation, in this case using multi-data sources.

Summary

This mixed methods research, set within the framework of a Proactive Evaluation, involved students and staff involved in the first-year architecture Foundation English program at Chulalongkorn University, Thailand. The key elements of the research were a Research Review undertaken to identify the basis of current practice in learner-centred learning in the teaching of English, undertaking a survey to determine staff preference for the methodologies identified in the Research Review, and a student’s Needs

Assessment – consisting of two surveys and semi-structured interviews – to determine the English language learning needs of architectural students entering the second year of the English for Academic Purposes program. The outcomes from these two steps were to be used to formulate policy guidelines for changes to the teaching of English for Academic Purposes.

The outcomes of the Research Review and the Needs Assessment are reported in the following chapter.

CHAPTER 4

Analysis of Findings

Introduction

In this study, the first phase consisted of a research review that aimed to identify the basis of current practice in learner-centred learning in the teaching of English. The second phase consisted of a needs assessment of students and teachers that sought to identify what students and teachers expected might be the outcomes of an English course that followed this practice. In this chapter, the findings from both phases are reported and analysed.

Research question 1

The study aimed at exploring the effectiveness of self-directed learning in the current situation. The first research question to be answered was:

What are the essential elements of a self-directed English language program for architecture students at Chulalongkorn University, Thailand?

The design of a successful self-directed program required consideration of the following factors:

- the materials;
- the teaching methodology;
- the assessment process.

Research question 2

The second research question to be answered was:

What kind of materials and content do architecture students require, and prefer, in order to experience success in English?

There are different kinds of materials used in the classroom; namely, commercial or ready-made texts, an adaptation of materials, authentic texts.

Research question 3

The third research question to be answered was as follows:

What will be the essential elements in a self-directed program for architecture students?

The essential elements in a program included the students themselves who bring with them their own specific skills and abilities. Learning strategies and learning style of those students were also considered.

Research undertaken in this study was used to identify the basis of current practice in learner-centred learning in the teaching of English. The results of the survey, using a Likert-type questionnaire to determine their preference for each cluster, are shown and discussed in this chapter. They were also used in order to obtain in-depth information regarding individual preferences in teaching – for both students and teachers. The resulting data was used to identify a preferred learner-centred teaching practice in English for architecture students amongst the staff at Chulalongkorn University Language Institute (CULI).

Part I: Research Review

Introduction

A Research Review, a recognised approach of Proactive Evaluation (Owen, with Rogers, 1999; Owen 2006), was used in this study to identify relevant

research on self-directed learning. The Proactive Form of Evaluation was chosen since it supports radical changes in an existing program that is seen to be out of date or that is not serving the needs of those for whom it was intended.

For five years, CULI had been offering English for Academic Purposes (English for Architecture Program) course for those architecture students who, in more recent times, have been facing changes affected by the use of computer technology and new approaches to teaching and learning. The existing English for Architecture Program no longer served the needs of students who were expressing their boredom and lack of motivation in the classroom. The teachers of the English for Architecture Program also felt discouraged since the students did not attend class regularly and showed a regular lack of concentration. It was clear that program development for the existing English for Architecture Program was required. The Proactive Evaluation introduced in this study was used to reveal the problems of the existing course while, at the same time, suggesting new approaches might be introduced.

Research review on self-directed learning

The scope of this research review is determined by the focus of this research study: the application of self-directed learning use in English Language Teaching (ELT). The major criterion for selecting material to constitute the research review was that the research should be focused on self-directed learning in ELT.

Strategies for language learning

Self-directed learning has attained a more important role in recent years due to the development of computer technology and the subsequent development of a more independent style of student learning. These shifts have resulted in less emphasis on teachers and teaching and a greater emphasis on learners and learning.

One consequence of these shifts has been a greater concern with language learning strategies. According to Weinstein & Mayer (1986, p. 315), language learning strategies are defined as 'behaviours and thoughts that a learner engages in during learning' that are 'intended to influence the learner's encoding process'. The learners tend to be more focused in the self-directed learning process; therefore, it is important that language learning strategies should be a key issue to be explored. This idea is supported by Oxford (1992/1993, p. 18):

> Language learning strategies are specific actions, behaviours, steps, or techniques that students use to improve their progress in developing L2 skills. These strategies can facilitate the internalization, storage, retrieval, or use of the new language. Strategies are tools for the self-directed involvement necessary for developing communicative ability.

Oxford (1990a, p. 9) also points out that the idea of language learner strategies: allows learners to become more self-directed; expands the role of language teachers; is problem-oriented; involves many aspects, not just the cognitive; be able to be taught; is flexible; and is influenced by a variety of factors. Knowles (1975) confirms these views, when he points out that self-directed learning is 'a process in which individuals take the initiative, with or without the help of others', to diagnose their learning needs, formulate learning goals, identify resources for learning, select and implement learning strategies, and evaluate learning outcomes.

Student-centred learning as a process

It is apparent that self-directed learning involves a significant change in the roles of teachers and learners. For the learners, they need to know what they need and identify the types of materials that suit them. Teachers need to know how to help learners learn on their own (with the help of self-learning materials) and evaluate their own progress through self-assessment.

The approaches recommended to facilitate self-directed learning generally reflect the student-centred nature of the process, e.g., self-paced

modules, independent study, and distance learning (Brockett & Hiemstra, 1991). Martin (1996) maintains that specific media and the learning variables and strategies used within the instruction can be manipulated to facilitate and encourage the learner toward greater independence.

A number of research models, however, have been developed that not only reflect the individuality of the learner but also seek to accommodate it within the learning process. Three specific examples of these are as follows: the Personal Responsibility Orientation (PRO) model offered by Brockett & Hiemstra (1991) which differentiates between the instructional processes and methods of self-direction, and the personality characteristics of the individual; the Staged Self-directed Learning Model (SSDL) developed by Grow (1991) which proposes that learners advance through stages of increasing self-direction; the Partnership Model proposed by D'A Slevin & Lavery (1991), which identifies and focuses upon various levels of control over the learning process.

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An important example of the learning process in the literature, and which should be taken into consideration, is the use of learning contracts. Negotiated learning contracts are considered one of the most effective methods of achieving the balance as they are the product of collaboration between the teacher and learner. As such, they are thought to negate many of the difficulties associated with the process of self-directed learning, e.g., wide-ranging abilities, experience, education, and motivation (Knowles, 1990).

The issues raised in this section suggest that self-directed learning should include: the learners' role and their learning strategy; the teachers' role; learning contracts between teachers and students; materials; assessment. To incorporate these elements, Murphey & Jacobs (2000, p. 232) suggest the importance of methodological preparation that gives students choice and responsibility in the learning:

> Methodological preparation involves acquiring strategies and collaborative skills for taking part in planning, directing and assessing their own learning.

A number of features identified by Murphey & Jacobs (2000) that help foster self-directed learners and learning are as follows:

- **The curriculum has opportunities for students to have a choice in the way mastery of content and subject matter is demonstrated and investigated:** State standards and local district curriculum standards don't need to be adjusted, but students should be able to have some choice in acceptable ways to show they meet the standards.
- **Teachers raise awareness of students' role in their own learning** (Abdullah, 2001)**:** Teachers shift some of the responsibility for learning from themselves to the learner. This is not to suggest that the teacher should not teach, make lesson plans, or facilitate activities. However, the teacher can instruct the class in those features over which the students have control, e.g., amount of effort, note taking, perseverance, locus of control, self-efficacy, and self-regulation.
- **Educators encourage study skills, inquiry, questioning, and an atmosphere where errors are acceptable during the process of arriving at correct answers:** Teachers need to be able to inhabit 'a world of ambiguity' comfortably. They should be able to avoid taking the shortest path to correct answers and should help students to determine correct answers through: critical questioning; expressing different and conflicting views; and putting assertions and hypotheses to the rigor of disciplined inquiry (scientific method).
- **Teachers provide opportunities for students to self-monitor, revise work, and reflect on their own thinking and learning**

processes: Journals, study groups, and critical friends' groups are just a few of the ways to achieve all this in classrooms.

Merriam & Caffarella (1999) note that developing lifelong, self-directed learners has now been incorporated as a major goal of many lower schools, colleges and universities and that the study of self-directed learning has emerged as one of the central thrusts of adult education research over the past three decades. They present their review of self-directed learning research in three broad categories:

1. **relating to goals of self-directed learning**: enhancing the ability of adults to be self-directed in their learning, fostering transformational learning as a central process in self-directed learning, and promoting emancipatory learning and social action;
2. **examining self-directed learning as a process or form of study:** linear, interactive, and instructional models; and
3. **considering self-directed learning as a personal attribute of the learner:** readiness and autonomy.

Traits of self-directed learners

A number of key words appear in studies associated with learner traits that have implications for self-directed learning. The traits, together with the researchers who refer to them, are listed in Table 4.1, below. The traits are as follows: student motivation, goal orientation, locus of control, self-efficacy, self-regulation, and metacognition. Each of these traits is elaborated below as part of this Research Review.

Motivation

Student motivation is the key factor for self-directed learners. Successful self-directed learners have a high degree of self-motivation. In fact

TABLE 4.1 RESEARCH ON TRAITS OF SELF-DIRECTED LEARNERS

Learner Traits	Researchers	Classroom Implications
Student motivation	Anderman (2004); Guthrie, Alao, & Rinehart (1997); Howse, Lange, Farran, & Boyles (2003); Lumsden (1994, 1999).	• Challenging, but achievable, relevant assignments; • Conceptual theme instruction; • Choice in task/task accomplishment; • Mastery learning/outcome-based instruction; • Cooperative/collaborative learning; individual goal setting; • Accelerated learning; teacher modelling of positive behaviours; • Depth rather than breadth of topics.
Goal orientation	Caraway, Tucker, Reinke, & Hall (2003); Nichols, Jones, & Hancock (2003); Stefanou & Parkes (2003).	• Type of assessment influences motivation; • Learner emotions/teacher instructional strategies influence student goal orientation; • A higher general level of confidence increases student engagement in curriculum.
Locus of control	Harlen & Crick (2003); Miller, Fitch, & Marshall (2003)	• Learning goals rather than performance goals; • At-risk students have a higher external locus of control.
Self-efficacy	Bouffard & Couture (2003); Linnenbrink & Pintrich (2003); Thomas (1993); Zimmerman (2002)	• Student demonstrates behavioural, cognitive, motivational engagement; • Teachers assist students to maintain self-efficacy beliefs; • Foster belief that competence/ability is changeable; • Motivational variables do not change much across subject matter; • Performance feedback improves independent learning.
Self regulation	Palmer & Wehmeyer (2003).	• Students can develop self-regulation through problem-solving/goal-setting instructional activities.

Learner Traits	Researchers	Classroom Implications
Metacognition	Blakey & Spence (1990); Ngeow& Kong (2001).	• Students should plan, monitor, and evaluate their thinking processes; • Students should engage in inquiry/problem-based learning that includes problem framing, data gathering, divergent thinking, idea generation, evaluating alternatives.

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motivation in learners could be counted as inner motivation or the students themselves who feel they want to learn.

This idea is consistent with the humanistic notion that human beings will be willing to learn once they have freedom to do so. Elias & Merriam, 1980) suggest that humanist thought, as the basis of self-directed learning, conforms with the following assumptions underlying humanism:

1. human nature is inherently good;
2. individuals are free and autonomous; thus, they are capable of making major personal choices;
3. human potential for growth and development is virtually unlimited;
4. self-concept plays an important role in growth and development;
5. individuals have an urge toward self-actualization;
6. reality is defined by each person; and
7. individuals have responsibility to both themselves and to others.

These ideas are supported by Knowles (1975) who believes that learners should be treated as human, i.e., naturally:

> The more people feel they are being treated as human beings – that their human needs are being taken into account – the more they are likely to learn and learn to learn.

Moreover, motivation could come from external factors such as those teachers who have a role in encouraging the learners to learn. Spratt et al., (2002) suggest that teachers might develop students' intrinsic motivation by using activities and materials that students find engaging.

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It is obvious that a self-directed learning approach requires the individual's motivation and collaboration in order that the learning process might be enhanced. As Garrison (1997, p. 18) points out:

> self-directed learning is defined as an approach where learners are motivated to assume personal responsibility and collaborative control of the cognitive (self-monitoring) and contextual (self-management) processes in constructing and confirming meaningful and worthwhile learning outcomes.

Thus, motivation is one of important factors that can encourage students to be self-directed learners.

Goal Orientation

Goal orientation is a narrower concept than student motivation. Defined by Caraway et al., (2003) as the individual's ability to make plans and set goals, it works in conjunction with self-efficacy to increase motivation. Goal-oriented individuals set challenging goals for themselves and maintain high levels of commitment to those goals despite encountering obstacles or challenges.

The main element of Knowles' description of self-directed learning is that adult students should identify their own learning goals, resources and methods, and also be involved in evaluating their learning (Knowles, 1990, Merriam, 1993). Grow (1991a, p. 230) defines self-directed learners as:

> those who, within a teacher-controlled setting, take greater charge of their own motivation, goal-setting, learning, and evaluation.

Thus, as a self-directed learning approach tends to focus on the individual and his achievement, it is necessary to encourage the self-directed

learner to have a certain goal and try to reach the goal when studying. To urge students to set their own goals would help create motivation in their learning since they can have the chance to learn what they want.

Locus of control

Third, locus of control is defined by Rotter (1966, in Miller et al., 2003, p. 548) as

> the tendency students have to describe achievements and failures to either internal factors that they control (effort, ability, motivation) or external factors that are beyond control (chance, luck, others' actions).

A self-directed learner has a higher internal locus of control than an external one.

The results of Rotter's (1966; 1976, p. 21) studies consistently suggest that 'those with internal (control) show more striving for achievement than those with external control'. The findings of Altman & Arambasich (1992) at the University of Calgary support this argument.

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In a study focusing on self –directed learning and student supervision, D'A Slevin & Lavery (1991) address the fundamental meaning of the self-directed learning concept and the advantages of this approach. They suggest that a balance must be established between maximizing the student's control of their own learning and facing the constraints imposed by statutory educational requirements, particularly with regard to learning outcomes. The issue of the locus of control at various stages in the learning process is required. Thus, It is obvious that locus of control plays a role in a self-directed learning approach.

In building the link between self-direction and personal development, Fellenz (1985) draws from such concepts as inner-directedness (Riesman, 1950), self-actualization (Maslow, 1954), locus of control (Rotter, 1966), autonomy (Erikson, 1964), and field independence (Witkin et al., 1971).

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Self-efficacy

The efficacy of self-directed learning is an important consideration when dealing with the education of adults. An individual's ability to maximize self-direction in learning can be enhanced (Brockett & Hiemstra, 1991). Hoban & Sersland (1998) investigated the relationship between self-direction in learning of adult university students and Bandura's (1995) construct of self-efficacy. Students who demonstrate a high degree of self-efficacy also demonstrate a high degree of self-direction in learning (Hoban et al., 2001).

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According to Bandura (1995), self-efficacy makes a difference in how people feel, think and act. Self-efficacy is defined by Bandura (1986, in Linenbrink & Pintrich, 2003, p. 120) as:

> people's judgments of their capabilities to organize and execute courses of action required to attain designed types of performances.

Self-efficacy is different from self-esteem in that it is a personal judgment of competence, rather than an emotional reaction to actual accomplishments. Self-efficacy is more specific to a task. Self-efficacy levels can enhance or impede motivation. People with high self-efficacy choose to perform more challenging tasks (Bandura, 1995). Bandura (1995, p. 71) also points out that:

> Self-efficacy beliefs determine how people feel, think motivate themselves and behave. Such beliefs produce these diverse effects through four major processes. They include cognitive, motivational, affective and selection processes.

Linnenbrink & Pintrich (2003) describe three important components linked to self-efficacy: behavioural engagement, cognitive engagement, and motivational engagement. Behavioural engagement is the observable behaviour a teacher can see in classrooms when students are working on a task. Cognitive engagement means thinking critically, taking advantage of different learning strategies, and using metacognition. Motivational engagement includes the students' personal interest in a task and his

perceptions of the utility value and general importance of the task. A higher level of motivational engagement has been shown to increase student achievement.

Self regulation

Self-regulation is the ability of the learner to control interest, attitude, and effort towards a task or a goal. The key to self-regulation is the ability of learners to understand the requirements of the task or the goal, and then to monitor and adjust this effort without reminders, deadlines, or cues from others such as teachers, peers, or parents. In fact, there is a high level of consistency across the major definition and conceptual framework for self-determination developed during the 1990s (e. g., Abery et al., 1995; Field & Hoffman, 1994; Martin & Marshall, 1995; Mithaug, 1996; Wehmeyer, 1996a, 1998, 2001). Field et al. (1998a, p. 2) summarise the various definitions of self-determination by stating that self-determined people apply 'a combination of skills, knowledge and beliefs' that enable them

> to engage in goal-directed, self-regulated, autonomous behaviour. An understanding of one's strengths and limitations together with a belief in oneself as capable and effective are essential in self-determination. When acting on the basis of these skills and attitude, individuals have greater ability to take control of their lives and assume the role of successful adults in our society.

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Metacognition

Metacognition means thinking about thinking. Metacognition is the ability to be aware of one's own learning processes, as well as knowing what works best for one's self. Metacognition or the ability to control one's cognitive processes (self-regulation) has been linked to intelligence (Borkowski et al., 1987; Brown, 1987; Sterberg, 1984, 1986a, 1986b). According to Sterberg (1986b, p. 24), metacomponents are responsible for

> figuring out how to do a particular task or set of tasks, and then making sure that the task or set of tasks are done correctly.

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The term 'metacognition' is most often associated with John Flavell, (1979). According to Flavell (1979, 1987), metacognition consists of both metacognitive knowledge and metacognitive experiences or regulation. Metacognitive knowledge refers to acquired knowledge about cognitive processes, knowledge that can be used to control cognitive processes.

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There are three key components to metacognition: awareness, knowledge and control. Awareness involves being attentive about what learning strategy should be used and how to use it. Setting goals would be a good way for learners to be aware of the tasks they have on hand. Knowledge involves knowing about how you learn under different conditions. It means that the different learning strategy can be applied to different type of learning tasks. Control is the ability to plan, organize and manage the learning.

Metacognition is the ability of students to analyse, reflect on, and understand their own cognitive and learning processes. Students who identify appropriate learning strategies in the right context are using metacognition. For example, students may know that they have trouble picking out the main idea in a reading passage. If they have been taught a simple graphic organizer, such as webbing, to identify the main idea, and then are able to choose their own idea to map out the passage in a web, then that student has used metacognition to complete the task. Students who are aware of their own cognitive strengths and weaknesses are more likely to be able to adjust and compensate for them.

Reflections on traits of self-directed learner

To understand and help architecture students achieve the many traits and characteristics of self-directed learners, concepts taken from motivational and educational psychology must be examined and discussed in the sections discussed above, i.e., student motivation, goal orientation, locus of control, self-efficacy, self-regulation, and metacognition. It is believed that such concepts will help these students develop and achieve their goal to be self-directed learners.

Motivation is very important for students who want to be self-directed learners. Once they are highly motivated, they are likely do the things as best as they can. Motivation is the key factor in mastering and achieving things. It is believed that students who have motivation will learn and carry out the tasks successfully. Whether it be intrinsic or extrinsic motivation, it will benefit those learners and the teaching environment. Goal orientation is another factor that is important in being a self-directed learner. To be a self-directed learner, students need to set their own goals and to do their utmost to achieve them. It is believed that setting goals can help students be more confident in their learning situation since they know what they are doing and realize it is their personal duty to achieve their goals. Thus, goal setting and orientation could enhance students to be more responsible and independent in the future.

Locus of control is another important factor that can assist students to become self-directed learners. It is not easy for students to have this kind of characteristic. Locus of control needs to be developed by the learners themselves. Two factors – internal and external – influence this control; however, it is believed that those who have higher internal locus of control can be a good self-directed learner since they could control their feeling, motivation and ability about what to choose and what to study. Locus of control; thus, is important in achieving goals.

According to this review, self-efficacy is defined as a personal judgment of competence. It is believed that learners who have high self-efficacy can be good self-directed learners.

Self-regulation is another important factor that can help learners achieve satisfactorily in what they study. Those learners who are able to self-regulate are able to find the way to control themselves towards reaching the goal. Self-regulation can help learners to be confident and find their own way of learning. Thus, self-regulation is able to help learners to be independent learners.

Overall, metacognition is the most important factor that can help learners to be independent. With its three components – awareness, language and control – metacognition is the key factor in being a successful self-directed learner. When architecture students are aware of what they study, they are likely to pay attention and can learn well. Language will be the key thing for those students who want to learn and they will control what they will be able to do.

To sum up, the six traits of being a self-directed learner are suggested in this study to enhance these architecture students to achieve their goal, set their own learning strategies and, finally, to create their own way of learning. Such traits can help learners to be able to be more independent and study on their own. Thus, it is believed that the architecture students who possess such traits will be more successful self-directed learners.

Teachers' responses

As a part of the research review, teachers' views on a self-directed learning approach were established by means of a questionnaire and semi-structured interviews. Their responses to both parts are reported in this section.

Preferred Practice

In order to identify preferred practice, teachers were required to complete a questionnaire that consisted of four clusters of items, as follows: role of students, role of teachers, learning style, materials and assessment. They were asked to rate the importance of each item on a scale from 1-5. Means and standard deviations for the scores on each item were calculated. On the basis of the mean item scores, the importance of the items was judged to be 'very high' (mean between 4 and 5), 'high' (mean between 3.0 and 3.9), 'medium' (mean between 2.0 and 2.9) and 'low'. The standard deviation (SD) was taken to be a measure of the spread of opinion: 'high spread' (SD greater than 1.0), 'medium spread' (SD between 0.80 and 0.99); 'low spread'

(SD less than 0.80). The outcomes for each cluster of items are discussed below.

Role of students

From the statistical analysis of the responses (see Table 4.2), teachers indicated that they had a higher preference for students working independently with the help of teachers, than for students working totally independently. There was a strong response for student learning to be supported by the use of computers, but this had less support than for independent study, alone.

Role of teachers

All three items considered in the role of teachers cluster were rated very highly, although there was a divergence of opinion to their importance (see Table 4.3). The highest rating, with the least divergence of opinion was for a teacher-oriented approach; second, with relatively high divergence of opinion, for teachers to be facilitators in the classroom; third, with moderate divergence of opinion, for teachers to be considered as a resource.

TABLE 4.2 MEANS AND STANDARD DEVIATIONS: ROLE OF STUDENTS' ITEMS

Item	Mean	SD
Learners study independently but with the help of teachers	4. 2	0. 9
Learners study independently	3. 8	0. 8
Learners study independently using computers as an aid in learning.	3. 5	0. 7

TABLE 4.3 MEANS AND STANDARD DEVIATIONS: ROLE OF TEACHERS' ITEMS

Item	Mean	SD
Teacher-oriented	4. 5	0.7
Teacher as facilitator	4.3	1.0
Teacher as resource person	4.0	0.9

TABLE 4.4 MEANS AND STANDARD DEVIATIONS:LEARNING STYLE ITEMS

Item	Mean	SD
An adaptation of learning style	4.3	1.0
Collaborative learning	4.1	0.8
Traditional style	4.0	0.9

Learning style

All three items included in the learning style cluster were rated very highly. There was a moderate to high divergence of opinion about their importance (see Table 4.4). These findings suggest that an adaptation to learning styles, that would include collaborative and traditional learning, should be undertaken.

Materials

All three items included in the materials cluster were rated very highly. There was a low to moderate divergence of opinion regarding their importance (see Table 4.5). The use of tailor-made materials written specifically for students had a very high level of support, with a moderate level of divergence of opinion. There was equal support for commercial texts material to be found on websites, with a lower divergence of opinion being expressed for materials from websites.

TABLE 4.5 MEANS AND STANDARD DEVIATIONS: MATERIALS ITEMS

Item	Mean	SD
Tailor-made materials	4.8	0.8
Commercial texts	4.5	0.9
Excerpts from websites	4.5	0.7

TABLE 4.6 MEANS AND STANDARD DEVIATIONS: ASSESSMENT ITEMS

Mean	Mean	SD
Formative assessment	4.5	0.8
Summative assessment	4.5	0.9
Self-assessment	4.3	0.7

Assessment

All three items included in the assessment cluster were rated very highly; there was a low to moderate divergence of opinion to their importance (see Table 4.6). There was an equal rating of very high importance for formative and summative assessment, with a moderate divergence of opinion for each. Interestingly, while there was a slightly lower level of rating of importance for self-assessment, it was still very high. At the same time, there was a lower divergence of opinion than for the other two items.

Findings of preferred practice (teachers' responses)

These five findings suggest that the teachers favour the concept of students working independently. They favoured assigning tasks to students who would then work independently, supported by computer-assisted learning where appropriate. The teachers, however, were less convinced that students should work alone without teacher's control. Overall, the teachers supported student-centred learning with the tasks being managed by the teacher. Teachers, meanwhile, continue to support a teacher-oriented role as facilitators and resource persons. They do, however, recognize the importance of a variety of learning styles – ranging across both traditional and collaborative approaches. This is supported by the very high rating for the use of a diverse range of learning materials, including the use of materials that could be obtained from websites. There was a similar support for a diversity of assessment methods with the traditional formative/summative mix being joined by quite unified support for self-assessment.

In summary, the teachers believed that it is important to encourage students to study independently; however, they wish to retain the roles of both facilitator and resourcer. They recognised the importance of both collaborative and 'self-directed learning' and the mixing of teacher and self-directed assessment. Essentially, they supported a mix of independence and dependence in the learning and teaching associated with English for Architecture.

Results from the semi-structured interviews

Six teachers from the division of English for science and technology were interviewed in order that in-depth information regarding the application of self-directed learning was investigated.

Role of students

In relation to the students' role, teachers insisted that students should follow the teachers' instruction. Meanwhile, teachers wanted to see students participate more in the classroom. Teachers felt that students should realize their responsibility and their role. All teachers agreed that students should work alone according to a self-directed learning approach. However, this way of working should happen in a short period in the classroom since teachers felt that they should control the classroom. Points raised by teachers were:

> Students should be encouraged to work alone, I absolutely agree but to a certain extent. I feel that I should teach them and explain to them more. They seem to need us.

> I still think that students need us especially when they do not understand. Thai students are so shy and they never raise their hands when they want us to explain those difficult things. I find that it is our responsibility to teach them.

> Students should be encouraged to learn by themselves. I want them to be more independent. What is more important is that they should be more responsible.

> I find it hard to apply a self-directed learning approach to our students. We assign them to learn and do what is stated by us. Only one thing they could do is to do exercises as we tell them

It can be seen that teachers wanted to put the emphasis on the role of students. However, due to the Thai context and culture, it is not easy to do so. Teachers also wanted to guide their students and tell them what or what not to do. The role of students that teachers want them to be is to realize their responsibility and follow the teachers' command.

Role of teachers

All teachers agreed that they should maintain a role in the classroom. They did not deny the concept of a self-directed learning approach but they found the traditional way of teaching is suitable for Thai students. They suggested the idea of using self-directed learning should be encouraged when students have to prepare for the tasks or assignment. Teachers found that to encourage students to learn on their own is useful but students should be guided by their teachers:

> As a teacher, I agree that we have to teach and stand in front of the classroom. I accept that students get bored with us sometimes but we should teach and provide knowledge for them. I do not oppose a self-directed learning approach. My suggestion is that we should combine this in some parts with our own style.

> I think that students should play a greater role. Teachers should lessen their role and step back. Practically, this is not easy to do since we want to teach them and guide them. We think that students need assistance from us all the time.

> I like teaching and I want to teach. I can't bear sitting and waiting for students to come to me and ask me questions.

Therefore, teachers found that they wanted to take the role of controller in the classroom. They wanted to teach and manage the activities in the classroom.

They also wanted to encourage their students to play more roles and carry out tasks on their own. Teachers did not deny the concept of self-directed learning but they wanted it to be an adaptation within the Thai context.

Learning Style

There was agreement that the new learning style should be an adaptation of self-directed learning. First of all, students are the ones who must take responsibility for their own work. Teachers found that, initially, Thai students could not study independently. They need to work as a team and collaborative learning should be the initial approach. Teachers believed that good students and weak students should be working together in order that they can help each other. As teachers explained:

> I think that learning style should be changed for a self-directed learning approach. It is not easy for our students who are used to our way of teaching; namely teacher-oriented for a long time, to change their way of learning so quickly. One suggestion is that students should be exposed to collaborative learning which encourages them to take responsibility of their learning with the help of their friends. They could not learn alone and this will help them.

> I agree that learning contracts should be changed but how? Learning contracts could help students realize their responsibility and work on their own.

They agreed that an adaptation of a self-directed learning approach should be implemented. For the Thai context, students should study in a collaborative way, not independently. They should help each other, during which time students should accept responsibility for their own learning.

Materials

Some teachers had decided to write their own materials for students especially in subject-specific fields. They agreed that the materials should be tailor-made for students.

> I'd rather write my own texts since I cannot find the right thing for students. Architecture students need to know more in terms of terminology in their field.

On the other hand, some suggested that commercial texts could be chosen and used as guidelines.

> Commercial texts are available. Why do we have to waste time? Just choose ones you think most applicable.

Others indicated that commercial texts did not really serve the needs of students.

> I think that websites could be useful at present. We can ask students to search for the texts on architecture and let them do the task.

One teacher proposed the idea of using websites in the area of 'architecture' to design the tasks for students.

> Teachers have a different point of view in terms of the materials. Some find that tailor-made materials are more suitable; others find that websites can be helpful. They also find that locating and using specific-area texts in architecture was important.

Assessment

All teachers believed that assessment should be in two forms: formative and summative assessment.

> I think that there should not be final and midterm exam only. There should be other tasks to be marked by teachers.

For a self-directed learning approach, teachers suggested that students should be responsible for self-assessment of their learning.

> Students should do their own assessment by writing what they think. This will be part of the scores.

However, this kind of self-assessment should be in the form of reflection.

> This kind of assessment will be used as a reflection for students who want to express their own views on their learning.

Significantly, they indicated that some self-assessment was required if a self-directed learning approach were to be implemented. The score given to assessment should be, however, under the consideration of teachers.

Summary of preferred practice

Data collected from questionnaire and interview regarding preferred practice from the teachers' point of view showed that teachers still have a positive attitude towards self-directed learning. In fact, teachers see the role of students to be as important as that of the teachers. It was obvious that teachers also want to encourage the students to be more active especially in the Thai setting. However, to let students study on their own should be under the eye of the teachers. Teachers indicated, however, that students need guidance from teachers and thus they, the teachers, must retain a classroom presence.

As for the learning style, teachers agreed that self-directed learning might be an alternative in the current situation; thus, learning style needs to be adopted to suit this. One proposed way is the collaboration among students who are good and weak in the same class. The most important thing for this approach is that students should be responsible for what they are assigned to do.

With regard to materials, teachers felt that tailor-made materials are better than ready-made ones. This is due to the subject-specific area in which they teach and in which there are no suitable commercial texts available. Materials are important to students because they are able to both motivate and encourage students to learn.

Assessment is the area most in need of change in order to suit a self-directed learning approach. Formative assessment and summative assessment

should both occur. To assess whether students progress and develop on their work is the goal of a self-directed learning approach.

For preferred practice, though, teachers of the English for Architecture Program still found their role important especially in the changing context. Staff did not reject a self-directed learning approach. To conclude, teachers prefer the practice of teaching in the current context to be as flexible as possible. Self-directed learning can be an alternative but it should be adapted for the Thai context.

Part B: Needs Assessment of Students

Part B involves the identification of needs of those students and teachers; in particular, an assessment was made of whether or not the students preferred a new approach to the teaching of English.

Phase 1

The data were collected from both students and teachers. Both groups were given the same form of a Likert-type questionnaire (see Appendix H). There were 40 items in the questionnaire which were divided into clusters as follows:

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- Role of teacher
- Material preparation
- Skills
- Teaching preferences
- Assessment

Responses were made on a 10-point scale. Mean scores, together with the standard deviation, were calculated for each item on the questionnaire. This phase of the study aimed to explore student preferences regarding self-directed learning in the English for Architecture Program provided for

architectural students, 80 of whom were male. The total number of students surveyed was 120. Of these, the overall response rate was 83 per cent; males (92%) responded at higher rate than females (68%). From a total of 20 teachers surveyed from the division of English for Science and Technology, 15 (75%) responded. These response rates are summarized in Table 4.7 (see Appendix H).

TABLE 4.7 RESPONSE RATES OF RESPONDENTS

	Total	Responses	Percentage/%
Students	120	100	83
Male	80	73	92
Female	40	27	68
Teachers	20	15	75

Student responses prior to the English for Architecture Program

The data of students' responses before the English for Architecture Program started were collected and shown in Table 4.8. The clusters of questions to be answered focused on the following:

1. What should the role of teachers be?
2. What kind of materials would be most suitable for those students?
3. Which skills do students prefer to use?
4. What kind of preferred practice of teaching would students prefer?
5. What kind of assessment would students prefer?

In the first data collection process undertaken in Phase I, students were required to complete a questionnaire before entering the English for Architecture Program. Statistical data, related to the students' responses, are contained in Table 4.8.

TABLE 4.8 STUDENTS' RESPONSES PRIOR TO THE ENGLISH FOR ARCHITECTURE PROGRAM

No	Item	Responses	
		Mean/10	SD
1	**What role should teachers take when teaching?**		
	a. Teachers should place more emphasis on students as individuals.	5.7	1.7
	b. Teachers should encourage students to be more independent in their learning.	5.9	1.4
	c. Teachers should have the dominant role in the classroom.	5.1	1.3
2	**What kind of materials will be most suitable?**		
	a. Teachers should write their own materials.	5.7	1.5
	b. Materials should be based on published texts.	5.2	1.4
	c. Materials should be focused on language skills.	5.9	1.8
	d. Materials should be focused on subject specific.	5.8	1.7
3	**Which skills need to be emphasized most?**		
3.1	a. Integrated	5.6	1.2
	b. Separated	4.9	1.7
3.2	a. Listening	6.0	2.3
	b. Speaking.	6.0	2.3
	c. Reading	6.2	2.4
	d. Writing	6.2	2.1
4	**What kind of teaching practice do students prefer?**		
	a. Studying outside classroom	4.9	1.3
	b. Using websites	5.2	2.2
	c. Assignment independently	4.9	1.3
	d. Practice on grammar	6.3	2.4
	e. Independent study with teachers' guidance	6.2	1.5
	f. Independent study without teachers' guidance	4.9	1.3
5	**What kind of assessment do students prefer?**		
	a. group	5.5	1.6
	b. individual	5.2	1.4

Role of teachers

Of the three items, students rated highest the item showing that teachers encourage students to study independently. Second was the item showing the emphasis on students as individuals. The lowest score was given to the dominant role of teachers. It can be seen that students prefer studying independently.

Materials

Of the four items, students rated highest materials which focus on language skills. Second was the provision of materials that emphasize subject-specific areas. Teachers rated materials that were written by subject teachers more highly than those provided by commercial texts. It can be seen that students prefer to have practice on language skills rather than the content.

Skills

Of the two types of approaches to the teaching of English language skills – those integrated with the study of architecture, and those separated from it – students rated integrated skills higher than separated skills. Students prefer studying all four skills together as they find it more practical. For the four language skills, reading and writing were rated higher than listening and speaking skills.

Preferred practice of teaching

Of the six items, students rated highest practice on grammar. Second was 'independent study with the teachers' guidance'. Students rated moderately the using of websites. The other three items were rated equally, namely, studying outside the classroom, independent study without teachers' guidance and doing assignments independently.

Assessment

Of the two types of assessment, group assessment was rated higher than individual assessment. Students may feel more confident when they are evaluated in group.

Analysis of needs assessment of students prior to English for Architecture Program

The students who had just completed their first year of study found the English course to be satisfactory. With regard to the role of teachers: they

wanted to be more independent of them. This may be because they were assigned to do the work in the self-access learning centre as part of their study in their foundation English course. It may also be the inspiration for them to study on their own and at their own pace. This seems to be the challenging job for teachers to prepare the tasks and the teaching techniques that encourage students to study independently.

Regarding materials, students found that they wanted to practice language skills rather than learn technical vocabularies. They might think that language skills can help them as a tool to study on their own. Integrated skills are what students really required as they could use them in both their study and their work. They, in fact, wanted to practice reading and writing because they had to read and write most of the time, especially during the examination which they found very difficult.

In respect of listening and speaking skills, students found them important but they did not use them so often in comparison with the other two skills. For preferred practice of teaching, it is surprising that students indicated that the need practice in the grammatical context. This may be due to their lack of accuracy in writing and reading in the previous courses. They also wanted to study independently but with their teachers for guidance. Students seemed to have positive attitudes towards independent study. However, students indicated that group assessment suited them since they were used to studying and being assessed in this way; therefore, they should have formal examinations as scheduled. They indicated they were afraid of being evaluated individually.

Phase 2

In the second phase of determining needs, students were given the same questionnaire used in Phase 1 *after* completing the English for Architecture Program. Once again, responses were made on a 10-point scale and mean

scores, together with the standard deviation, were calculated for each item on the questionnaire.

Student responses following the English for Architecture Program

In this phase, students were required to complete a questionnaire after completing the English for Architecture Program. Statistical data, related to the students' responses, are contained in Table 4.9.

TABLE 4.9 STUDENTS' RESPONSES AFTER THE ENGLISH FOR ARCHITECTURE PROGRAM

No	Item	Responses	
		Mean/10	SD
1	**What role should teachers take when teaching?**		
	a. Teachers should place more emphasis on students as individuals.	5.9	1.6
	b. Teachers should encourage students to be more independent in their learning.	6.2	1.7
	c. Teachers should have the dominant role in the classroom.	5.7	1.4
2	**What kind of materials will be most suitable?**		
	a. Teachers should write their own materials.	6.0	1.8
	b. Materials should be based on published texts.	5.9	1.5
	c. Materials should be focused on language skills.	6.5	2.3
	d. Materials should be focused on subject specific.	5.8	1.4
3	**Which skills need to be emphasized most?**		
3.1	a. Integrated	5.8	1.2
	b. Separated	4.3	1.0
3.2	a. Listening	5.8	1.2
	b. Speaking.	4.3	1.2
	c. Reading	6.2	2.2
	d. Writing	6.3	2.2
4	**What kind of teaching practice do students prefer?**		
	a. Studying outside classroom	5.2	1.2
	b. Using websites	5.8	1.3
	c. Assignment independently	5.0	1.0
	d. Practice on grammar	5.8	1.3
	e. Independent study with teachers' guidance	4.9	1.4
	f. Independent study without teachers' guidance	4.9	1.3
5	**What kind of assessment do students prefer?**		
	a. group	5.7	1.5
	b. individual	5.5	1.2

Role of teachers

Of the three items, students rated highest independent study. It shows that students prefer studying independently if they are given a chance. This may be due to the nature of their other subjects which emphasise individual projects. Thus, students seem to be used to studying by themselves. Second is the item showing the emphasis on students as individuals. This means that students realize that their role as important and want to study independently. The lowest rating was for the item showing the dominant role of teachers. This finding suggests that at the present teachers should reduce their role and let students study on their own.

Materials

Of the four items, students found language skills the most important. They realised that once they know how to use each language skill, they can use English better. Second came the item showing the materials that were written by teachers. It shows that materials written specifically for students would be most suitable and students prefer using them. Lower scores were received by items relating to the use of published texts and the materials focusing subject-specific area. Published texts are not the materials from which they want to learn. Besides, texts focusing on the subject-specific area might not be as important as texts focusing on language skills since students already know the area they are studying. They, thus, want to practice English skills using texts written by their teachers.

Skills

Of the two types of skills, integrated skill was rated higher than separated skill. Students did not want to study integrated skills since they find them hard to apply. Writing and reading skills were rated quite high in comparison with the other two skills. Writing seemed to be the most important skill since students had to use it in their study. Finally, listening skills were rated higher

than speaking skills. Students found listening skill necessary since they could use them in their daily life as well.

Preferred practice of teaching

Of the six items, students rated the two items equally; namely using websites and practice of grammar. Students seemed to prefer using websites as they are now used to searching for information. Students rated the item showing studying outside classroom second since they might find that they could search for more information and could learn more on their own. Surprisingly, students rated the items showing independent study with, and without, teachers' guidance equally.

Assessment

Of the two types of assessment, group assessment was rated higher than individual assessment. Students seem to be satisfied with being assessed in groups both before and after entering the English for Architecture Program.

Analysis of needs assessment by students after the English for Architecture Program

The same group of students gave their responses before and after studying the English for Architecture Program and the same scales were used each time. It was surprising that students still found that they wanted to study independently. Such findings confirmed that independent learning might be applied well to those architecture students.

For materials, students found that language skills should be more useful and applicable for them. Besides, after studying the English for the Architecture Program, students found that materials written by teachers are more useful than commercial texts which do not emphasize the subject-specific area.

As for skills, reading and writing are still the two important skills for these students. They said they would be useful both for their study and their

work. Those students found that they could hardly use listening and speaking skills during their study.

For preferred practice of teaching, they found that independent study might be most suitable since they are assigned to do project work every week. The nature of their subject allows them to study independently and they seemed to be satisfied with this. However, the English practice could not be done independently and students also need guidance from the teachers as well for this component.

The findings on assessment were rather different in that those students showed a need to be evaluated in a group. Therefore, they found that group assessment could reveal results in a more objective way.

Comparison of pre- and post-phase responses to the English for Architecture Program

The data shown in Table 4.10 provide a comparison of students' responses in pre-study and post-study phases of the English for Architecture Program. Similarities and differences were identified; in particular, large shifts (mean difference greater than 0. 5) and medium shifts (mean differences between 0. 2 and 0. 4) were identified and are commented upon in each of the sections below.

Role of teachers

When comparing the pre- and post-results from the questionnaire, there are similarities in the opinion in rating the three items associated with the role of teachers. An exception is that a shift of opinion lies in the item showing the dominant role of teachers.

TABLE 4.10 COMPARISON OF PRE-STUDY AND POST STUDY RESPONSES OF STUDENTS

No.	Item	Responses		
		Pre-Mean	Post-Mean	Shift
1	**What role should teachers take when teaching?**			
	a. Teachers should place more emphasis on students as individuals.	5.7	5.9	+0.2
	b. Teachers should encourage students to be more independent in their learning.	5.9	6.2	+0.3
	c. Teachers should have the dominant role in the classroom.	5.1	5.7	+0.6
2	**What kind of materials will be most suitable?**			
	a. Teachers should write their own materials.	5.7	6.0	+0.3
	b. Materials should be based on published texts.	5.2	5.9	+0.7
	c. Materials should be focused on language skills.	5.9	6.5	+0.6
	d. Materials should be focused on subject specific.	5.8	5.8	0
3	**Which skills need to be emphasized most?**			
3.1	a. Integrated	5.6	5.8	+0.2
	b. Separated	4.9	4.3	-0.6
3.2	a. Listening	6.0	5.8	-0.2
	b. Speaking.	6.0	4.3	-1.7
	c. Reading	6.2	6.2	0
	d. Writing	6.2	6.3	+0.1
4	**What kind of teaching practice do students prefer?**			
	a. Studying outside classroom	4.9	5.2	+0.3
	b. Using websites	5.2	5.8	+0.6
	c. Assignment independently	4.9	5.0	+0.1
	d. Practice on grammar	6.3	5.8	-0.5
	e. Independent study with teachers' guidance	6.2	4.9	-1.3
	f. Independent study without teachers' guidance	4.9	4.9	0
5	**What kind of assessment do students prefer?**			
	a. group	5.5	5.7	+0.2
	b. individual	5.2	5.5	+0.3

Materials

Of the four items concerning materials, a large shift occurred in two items; namely, 'materials should be based on published texts' and 'language skills'. It means that students found the language skills more important. Students still wanted to practice language skills separately rather than in the subject specific area both before and after the course. However, there was no shift in the item showing the materials focusing subject-specific area.

Skills

In respect of skills, there was a small shift in terms of integrated skill while there was a negative shift in terms of separated skills. A medium shift also lay in listening but a great shift occurred with speaking skill. It seems that students did not find speaking skills as important as listening, reading and writing. However, listening and speaking skills were perceived to be less important than the other two skills. They found writing skills the most important skill. They also found reading important. Unlike the pre-study finding, it showed that students rated reading and writing higher than speaking and listening.

Preferred practice of teaching

For the preferred practice of teaching, a great shift took place in the item relating to the use of websites. It means that after studying the English for Architecture Program, students found that a website could help them a great deal in terms of the texts and the exercises. They might find this more interesting. However, there was a large negative shift in two items: grammar practice and independent study with teachers' guidance. So, students might need less practice in relation to grammar. Besides, they did not need guidance from their teachers when studying independently.

Assessment

For assessment, there was a medium shift in both group and individual assessment. It seems that students did not find any difference in assessment. However, students maintained the same opinion regarding assessment in that they preferred group assessment rather than individual assessment.

Analysis of needs assessment of students (before and after the English for Architecture Program)

A comparison was made between the needs assessment carried out before and the one undertaken after students entered the English for Architecture

Program. This task aimed to reveal the differences and similarities of the students' attitudes and their needs towards the teaching of English. It is evident from the comparison in the table that the ideas and needs of students have changed considerably in some items.

In respect of the role of teacher, a great shift lay in the item concerning the dominant role of teachers. The implication is that students still wanted to have their teachers as guides while, simultaneously, wanting to study independently. For materials, students found language skills important but a great shift occurred with the item of 'published texts'. Students may think that published texts can provide more ideas and creativity than the existing written texts.

For skills, students still found reading and writing most important but a great shift occurred in speaking skill. Students found it more important because they have to communicate in class with their teachers and make an oral presentation.

For preferred practice of teaching, using websites might be an alternative to enhance students ability to study independently. Once they can study on their own, students might gain more confidence and be less dependent on their teachers.

For assessment, students still preferred that it should be done in the group. They might be afraid of being evaluated individually since they found that the criteria and the way to be evaluated individually might be subjective.

Part B: Needs Assessment of Teachers

Phase 1

Teachers were given questionnaires in a similar format as the students. This phase shows the analysis of teachers' responses; the results are shown in Table 4.11.

Teacher responses to the English for Architecture Program

Five sets of responses were identified: the role of teachers, materials, skills, preferred practice of teaching, and assessment. These are discussed in the sections below.

Role of teachers

Of the three items, teachers rated the item showing the dominant role of teachers the highest. Certainly, teachers still demonstrated that their role should be important in the classroom. To confirm this, they rated the item showing the emphasis on 'students as individuals' lower than this item. Finally, teachers rated the item showing the 'independent study' the lowest, believing that students should be seen to be studying in the classroom.

TABLE 4.11 TEACHERS' RESPONSES TO THE ENGLISH FOR ARCHITECTURE PROGRAM

No	Item	Responses	
		Mean	SD
1	**What role should teachers take when teaching?**		
	a. Teachers should place more emphasis on students as individuals.	5.7	1.6
	b. Teachers should encourage students to be more independent in their learning.	5.4	1.4
	c. Teachers should have the dominant role in the classroom.	5.9	1.8
2	**What kind of materials will be most suitable?**		
	a. Teachers should write their own materials.	6.2	2.0
	b. Materials should be based on published texts.	5.3	1.3
	c. Materials should be focused on language skills.	5.4	1.5
	d. Materials should be focused on subject specific.	5.8	1.7
3	**Which skills need to be emphasized most?**		
3.1	a. Integrated	6.1	2.0
	b. Separated	5.4	1.4
3.2	a. Listening	5.3	1.2
	b. Speaking.	5.2	1.2
	c. Reading	5.8	1.6
	d. Writing	6.1	2.0
4	**What kind of teaching practice do students prefer?**		
	a. Studying outside classroom	5.1	1.1
	b. Using websites	5.2	1.3
	c. Assignment independently	5.4	1.5
	d. Practice on grammar	5.5	1.4

	e. Independent study with teachers' guidance	5.5	1.3
	f. Independent study without teachers' guidance	5.1	1.3
5	**What kind of assessment do students prefer?**		
	a. group	5.4	1.5
	b. individual	5.2	1.2

Materials

Of the four items, teachers rated the items showing materials that should be written by teachers the highest. Teachers believed that texts written by the teachers would be most suitable for their students. Materials focusing on subject specific area was rated the second. Language skills were rated third. Published texts were rated the lowest.

Skills

Of the two types of skills, integrated skill was rated higher than separated skill. Teachers found integrated skills more practical for their students. For four skills, reading and writing were rated the highest. Teachers believed that writing should be emphasized since students could use writing in their study and their work. Writing is also important when they want to apply it to their further study. Listening and speaking were rated rather low.

Preferred practice of teaching

Of the six items, teachers rated 'practice grammar' and 'independent study' with teachers' guidance' equally. Using websites was rated quite high by teachers. The other two which were rated rather low, but equally, were 'studying outside classroom' and 'independent study without teachers' guidance'. Therefore, teachers realize the importance of the using computer technology. However, grammar is still important in their opinion. They also think that independent study might be suitable in the current context but it should be undertaken under the teacher's guidance.

Assessment

Of the two types of assessment, group assessment was rated higher than individual assessment. It means that teachers prefer group assessment to individual assessment.

Analysis of needs assessment of teachers

Teachers were asked to give their view towards the English for Architecture Program. After teaching the English for Architecture Program, teachers were asked to respond to a questionnaire which was the same as that given to the students. The reason why teachers were asked to give their opinions and express their needs is that teaching and learning in the current situation should be adapted to include to both. Teachers found that teaching and studying in the classroom required a teacher-centred approach or else students would not know what to do. This is a traditional style of teaching that has been practiced for many years. This may be part of Thai culture that students should show respect in class by listening passively to the teachers. Teachers thus found themselves as the focal point in the classroom.

For materials, teachers believed that tailor-made materials written by teachers would best suit students' needs. Teachers who write the English for Architecture Program materials claimed that they had asked the faculty staff of Faculty of Architecture and searched for the texts related to the area those students need to know about when preparing the materials. Teachers thus found that written materials should be better than commercial texts and more suitable for these particular students.

For skills, teachers found that writing is the most important skill followed by reading. Listening and speaking were ranked less important as teachers believed that students could practice on their own.

For preferred practice of teaching, it is surprising that teachers also wanted their students to undertake independent study but with their guidance. They also indicated that grammar is still important.

For assessment, teachers found that group assessment may be more practical than individual assessment.

Comparison between student and teacher responses

When comparing the teachers' and students' responses, data were collected from the students' responses in the post-study phase since students have had experience in studying the English for Architecture Program. Teachers' and students' responses were compared under the following categories: role of teachers, materials, skills, preferred practice of teaching and assessment.

Criteria were set up to consider the differences in the two sets of responses. Similarities and differences were identified. In particular, large differences (mean difference greater than 0.5) and medium differences (mean differences between 0. 2 and 0. 4) were identified and are commented upon in each of the sections below (see Table 4.12).

TABLE 4.12 STUDENTS' AND TEACHERS' RESPONSES

No	Item	Responses		
		Student	Teacher	Differ-ence
1	**What role should teachers take when teaching?**			
	a. Teachers should place more emphasis on students as individuals.	5.9	5.7	+0.2
	b. Teachers should encourage students to be more independent in their learning.	6.2	5.4	+0.8
	c. Teachers should have the dominant role in the classroom.	5.7	5.9	-0.2
2	**What kind of materials will be most suitable?**			
	a. Teachers should write their own materials.	6.0	6.2	-0.2
	b. Materials should be based on published texts.	5.9	5.3	+0.6
	c. Materials should be focused on language skills.	6.5	5.4	+1.1
	d. Materials should be focused on subject specifics.	5.8	5.8	0
3	**Which skills need to be emphasized most?**			
3.1	a. Integrated	5.8	6.1	-0.3
	b. Separated	4.3	5.4	-1.1
3.2	a. Listening	6.2	5.3	+0.9
	b. Speaking.	6.3	5.2	+1.1
	c. Reading	6.6	5.8	+0.8
	d. Writing	7.0	6.1	+0.9
4	**What kind of teaching practice do students prefer?**			
	a. Studying outside classroom	5.2	5.1	+0.1

	b. Using websites	5.8	5.2	+0.6
	c. Assignment independently	5.0	5.4	-0.4
	d. Practice on grammar	5.8	5.5	+0.3
	e. Independent study with teachers' guidance	6.3	5.5	+0.8
	f. Independent study without teachers' guidance	5.5	5.2	+0.3
5	**What kind of assessment do students prefer?**			
	a. group	5.7	5.4	+0.3
	b. individual	5.5	5.2	+0.3

Role of teachers

Of the three items regarding the role of teachers, the greatest difference lay in the item suggesting that teachers should encourage students to study independently. There was also a large difference between the students supporting this item compared with the teachers. There was little difference in the responses to the other two items: the individual expectations of students is suggested in both.

Materials

For materials, differences between students and teachers were noted in three items. Students placed the highest importance on language skills while teachers placed more importance on tailor-made materials. Both teachers and students agreed that the materials to be taught should be specially designed and written by the teachers rather than relying on commercial texts. Both groups believed that the provided language materials should focus on architecture-specific areas.

Skills

Large differences existed in the items concerned with language skills. Students rated all four language skills more highly than did the teachers; however, both groups rated reading and writing as the most important. The students rated speaking and listening skills more highly than did the teachers. Both teachers and students agreed that an integrated approach to language skill development was preferable, although there was a moderate difference

favouring the teachers in this preference. Both students and teachers agreed that writing and reading should receive greater emphasis than listening and speaking.

Preferred Practice of teaching

Both students and teachers agreed that independent study should be introduced to students with the teachers' guidance. An independent approach, however, was highly advocated by the students. Using websites and practicing grammar was of moderate importance to the students compared with the ratings of the teachers. Teachers showed a moderate preference for the undertaking of independent assignments; neither group really supported totally independent study, although there was more support for this mode from the students. Consistent with this view was only average support for studying outside the classroom by both groups. There was a low difference in views in this regard.

Assessment

In terms of assessment, students and teachers were similar; both students and teachers supported group over individual assessment. A moderate difference between students and teachers occurred in both group and individual assessment. This suggests that students and teachers accept the importance of both group and individual types of assessment.

Overall analysis of needs assessment of both teachers and students

The needs assessment revealed both differences and similarities in the responses of teachers and students; clearly, they have different points of view in what should be taught and how students should learn. This suggests that some compromise is required on these issues.

Concerning the role of teacher, teachers and students had different views in that students wanted to study independently but teachers wanted to have a more dominant role in the classroom. This might be due to the nature

of Thai culture to do with the seniority and teachers still want to maintain their traditional roles.

For materials, students wanted to practice language skills as they found it a necessary tool for their further study. Students did not regard the content in the subject specific area as important as language skills. Teachers found that materials written by teachers and which emphasize subject specific areas are is important. They should reach an agreement to a certain extent. The other three items – skills, preferred practice of teaching and assessment – are those which students and teachers seem to agree upon.

For skills, teachers and students seemed to be moving in the same direction as they placed writing and reading as the most important skills. For preferred practice of teaching, both students and teachers found that studying independently would be the best but with teachers' guidance.

For assessment, students and teachers found that group assessment would be the most suitable type for the current situation.

Phase 3: Semi-structured Interviews

Students

This phase aimed to elicit information from both students and teachers in order that in-depth information regarding self-directed learning could be collected. Needs and opinions of students towards self-directed teaching and learning were to be elicited from architecture students.

The interview was undertaken with twelve students who were first-year architecture students. The questions addressed are contained in Appendix I (Students). They were randomly chosen and all of them were willing to give their opinion about a self-directed learning approach. The following points can be concluded as follows:

Role of teachers

Ten out of twelve students found it useful and helpful for them to study in class with teachers.

> I really want my teacher to stand beside me and explain what is right or wrong.

> In fact when we have our teacher to be our guidance, we may feel dependent. I think that we should have time for our study alone.

They believed that they would be assisted all the time and they found it much easier to get things clear and more understandable.

> I find it helpful when I have my teacher in the classroom and explain things to me.

Perhaps they do not have time to search for or to do exercise on their own. However, those who found that teachers should have the dominant role preferred studying on their own and selecting activities on their own as well.

> I like to have my teacher in class especially when I do not understand the lesson. But I like to have my free time as well.

These architecture students found that their teachers could help a great deal when studying. However, they prefer studying independently to a certain extent. In this context those students did not disregard their teachers at all.

Material preparation

The twelve students who were interviewed agreed upon the need to have materials that focused on their subject-specific areas: landscape, interior design, industrial design and architecture.

> I want to learn the lessons related to my subject-specific area.

> I think that materials in our subject-specific area are important and useful.

> I prefer to have texts in my subject-specific area.

A minority of students preferred having teachers write their own materials: they relied on the teachers knowing what should be studied and what might be achieved by that study; however, the majority did not comment on this issue. Most students found it important to have texts and lessons focusing on English language skills that relate to their subject area, with the teachers available for support when required:

> I still think that practicing English skills is important. For example, I like to practice speaking and listening.

These students found that materials should be written by their teachers. Besides, they wanted to practice language skills and study in their subject-specific area. They hoped to use the terms in the texts in their study as well.

Skills

For skills in studying, students found listening and speaking skills the most important things for them.

> I like to practice listening and speaking since both of these things will help us when we have to do the presentation.

This may be so because it matched the needs of their study in class. They all agreed on this but they had some different opinions about reading and writing skills. Five of the twelve preferred writing skills to reading as they found it useful in their project work.

> I find that writing is very important to me especially when we have to write the term paper or the project.

However, the others found reading more helpful when they had to do the project work because they had to search for the data either in the library or from websites.

> I think reading and writing are equally important. Since our subject requires project work a great deal, we need to search for information from the texts or the websites which are in English.

Architecture students have a variety in choosing skills to practice. Some prefer reading and writing; others find listening and speaking more important. Thus, the skills to be practiced depend on the needs of the individual.

Preferred practice of teaching

Ten out of twelve agreed on the way that teacher should allow students study on their own. They were used to doing their project work in their subject-specific area. Thus, students found that letting them study on their own suited them well.

> I think that the lessons we learn are good. I, however, want to study independently since I have to do the project work and could not attend class in time.

> I prefer studying language focus in order that I can write correctly.

It was surprising that students preferred studying the grammatical part as they found it important for their study. However, they also need some guidelines from their teachers. A few found that it is useful to use the websites on grammar for practicing.

> I like to practice grammatical part as it will help me when I write.

> I prefer practicing or doing exercises from the websites.

Architecture students believe that studying independently might suit them. They have to do a great deal of project work and find the time is so limited. Thus, independent study might be an alternative for them. Some find the practice on grammar useful and this will help them in their further study.

Assessment

For assessment, five out of twelve felt that group assessment would be suitable for them. The others preferred being assessed individually.

> I want to be evaluated in a group not individually.

> I do not want to do the test. It makes me nervous.

Students found that assessment was important for their study. It was important for them to have some measure of their progress.

> I think that evaluation is important for us. It could show us if we could improve or not.

Architecture students found that group assessment might be more practical for them. They do not want to assessed individually; they prefer group assessment.

Conclusions

Students in this phase were given an in-depth interview to obtain their ideas towards self-directed learning. Students found that they still wanted their teachers to assist them when studying although they felt more comfortable to study on their own. A few found that studying independently was better than studying in class.

For materials, it was surprising that students wanted the materials to be focused on the subject-specific area rather than language skills. It seems that students already know the content in subject-specific area and they might feel more confident in practicing English with the content they know. Students held a variety of opinions regarding skills. Listening and speaking are to be emphasized as well as reading and writing. It means that each person has his own needs in practicing language skills; thus, letting students study on their own interest might be best for this context. Students found that

being assessed in groups would be better; however, in reality, they did not want to be tested at all.

Teachers

In order to determine the needs and opinions of teachers, six teachers from Division of English for Science and Technology were asked in terms of their preferred practice of teaching and problems mostly found in class. The questions addressed are contained in Appendix I (Teachers). The findings from these interviews, are summarized below.

Role of Teachers

All teachers found it important to have a role in the classroom.

> I think that no matter what happens a teacher should play a role in the classroom.

> I still think that we should help our students since they are our students in the classroom.

What made them embarrassed was the ignorance in the classroom or students arriving late. They were willing to help their students all the time as they regarded this as their responsibility.

> I find it important to take care of our students. I do not think that students could study on their own.

One teacher found it boring to teach all the time and she wanted her students to attend to their own work.

Teachers indicated that they should maintain their role in the classroom. No matter if the approach is changing, the role of teacher remains important. This may be due to Thai culture showing that the elders should take good care of the younger ones and accept their respect.

Material Preparation

All teachers agreed that commercial texts were not suitable for English for Architecture Program as the English for Architecture Program was aimed at their local subject-specific area.

> No commercial texts are suitable for the existing English for Architecture Program. We have to write our own materials.

> I think that the English for Architecture Program is focused on subject specific area and this caused us to write our own materials.

They found it more practical to write their own materials in order that their students would be able to use the knowledge learnt in their field of study.

> We cannot find the right book for the English for Architecture Program.

Lecturers did not find any commercial texts suitable for their students. They preferred writing their own texts as they thought this would serve their needs. They also thought that the focus should be the subject-specific area of architecture.

Skills

All teachers agreed that writing should be emphasized since students need to be able to apply that skill in their study and their work.

> Students cannot write grammatically correct and they need to practice this.

Some teachers found that writing and speaking should be emphasized more and speaking should be taught by native-speakers only.

> Speaking should be taught by native speakers only.

Reading should be given in the form of exercises and students should do these on their own.

> Reading and writing should be emphasized for students. This will help them improve their English skills.

Teachers agreed that writing should be emphasized to their students. Teachers believed that students could have this tool in their own study and their own academic writing. Report writing and project writing need the correct form of writing as well.

Preferred practice of teaching

Teachers still found it important to be the manager in the classroom.

> I think that teaching in the classroom requires the role of teachers as managers.

They felt that students would be less confident if the teachers were to lessen their role.

> Teachers can have their own way when teaching. However, they should play the role in the classroom and act as guides for their students.

They indicated that students should be exposed to teachers' input in order that they could do well in their exam. Thus, teachers found it important to guide students and tell them what to do.

> I do not think teachers should lessen their role. Teachers should find the best way of teaching when they meet the students in class.

Teachers indicated that their main role should not be changed, namely, to enhance students' skill according their own particular teaching techniques.

Assessment

The teachers agreed that both individual and group assessment should be undertaken.

> I think that assessment could be given to students, both group or individual.

For self-directed learning, individual assessment might be practical for those students since they might have their own style and their own pace in learning.

> Students should be given individual assessment since they are used to doing the project work on their own.

Teachers, when asked, did not deny individual assessment. They saw it as a necessary part of assessment in a self-directed learning approach.

Conclusion

To conclude, teachers found that their role should not be changed since they believed that a traditional approach is suitable for Thai students although self-directed learning was to be introduced. Thai teachers still prefer to be the manager of the classroom. They were afraid that Thai students could not study well without their help.

In respect of materials, teachers found it more suitable to write their own materials rather than using commercial texts. Materials should focus on a subject specific area rather than merely on specific language skills.

Regarding skills, teachers agreed that writing is the most important skill. This idea is quite different from the students' responses that saw the equal importance of all four skills.

Finally, teachers preferred to retain their role as managers in the classroom. They wanted to guide and teach their students. They agreed, however, that both group and individual assessment should be undertaken.

Summary of the Needs Assessment

The needs assessment indicated that students and teachers had similarities and differences in their perceptions of the application of self-directed learning. Their needs were similar in parts and different in others.

Role of the teacher

Students and teachers agreed to some extent that there should be a lessening of the role of teachers. Teachers found it important to maintain their role in the classroom while students felt more comfortable to study on their own. However, students still needed assistance from their teachers.

Materials

Students and teachers had the same opinion about the non-use of commercial texts. However, they held different opinions in terms of the content of the subject. Teachers focused on the subject-specific area, while students preferred studying the language skills. Students found that they already knew the subject specific content and they wanted the language skills for their further study.

Skills

For skills, students and teachers possessed different opinions. This may be due to their different perceptions about learning. Students found that they wanted to practice listening and speaking since such skills could help them in their further study. However, teachers thought that writing was the most important skill to achieve when they were still studying. Teachers found that writing could help students when they undertake project work or write their report. Nevertheless, both teachers and students found that integrated skills should be taught rather than separating skills.

Preferred practice of teaching

Teachers and students had different ideas in terms of preferred practice of teaching in some areas. However, both agreed that the grammatical part is the most important part to be taught by teachers.

Assessment

Both teachers and students agreed that assessment should be carried out in groups. To conclude, the findings of this part – needs assessment could be used to create guidelines to set the strategies for teaching and learning in self-directed learning concept.

Needs Assessment Findings

Question 1: What are the essential elements of a self-directed English language program for architecture students at Chulalongkorn University, Thailand?

The results from the needs assessment revealed that the essential elements in the design of a successful self-directed learning program are four-fold. Firstly, a self-directed learning program requires the teachers' role to be that of facilitator. However, the findings revealed that teachers still found their traditional role important and at the same time they wanted their students to study independently. Students, on the other hand, felt satisfied when working independently. Thus, a combination of the two responses should be used in this English for Architecture Program. The important thing in designing the program is that the teachers should recognise the importance of their role and fulfil it strictly in order to facilitate their students to become self-directed learners.

Secondly, students' participation and responsibility is required in a self-directed learning program. The findings showed that students wanted to study independently but under the teachers' guidance in some way. This means that students have to be aware of their role as well. To encourage students to be self-directed learners requires the mutual understanding between students and teachers. To design a successful self-directed learning program requires the collaboration and understanding of both teachers and students.

In relation to the role of teachers, teachers and students should reach an agreement in deciding the role of each other. Teachers need to adapt to a self-directed learning approach while students should try to cooperate with their teachers

Thirdly, preferred practice of teaching is important for a self-directed learning approach since it can be used as a tool to encourage students to be self-directed learners. The findings revealed the differences between teachers and students in that teachers saw their role as managers. Also, teachers did not regard the use of websites tube as important as did students. While students showed enthusiasm in using websites, teachers still wanted them to practice grammatical aspects. This could mean that in order to implement a self-directed learning approach, the preparation and needs of the two partners; namely teachers and students both need to be considered.

Fourthly, assessment is also as important as a part of the self-directed learning approach. Once teaching and learning has been changed to individual performance, the assessment should be adapted to suit this. An individual project or presentation of a portfolio should also be part of the assessment suite. Group assessment, however, is still considered to be important since students are used to being evaluated in this way. If students are assigned to study independently then they should be evaluated as individuals. The findings showed that teachers and students agreed to have both individual and group assessment.

Related sub-questions

There were three related sub-questions in the study, and the findings for each of these are considered in the following sections.

Sub-question 1: What kind of materials will be most suitable for the architecture students in the study?

According to the findings, different views about materials were held by teachers and students. Nevertheless, most of them agreed that materials

should be specifically written by teachers rather than relying on the provisions of commercial texts. One reason for this is that those commercial texts may not serve the specific purpose of those students.

Specially designed texts for architecture students were not available except when teachers of the course write them. However, teachers and students did not agree on the content, i.e., whether it should focus on subject-specific material or on language skills. A self-directed learning approach means need to study on their own; thus, materials should be specifically prepared for them. Task-based and project-based might be an alternative way of preparing materials.

Deleted: ****Deleted ***Sinclaire & Ellis (1992) observe that activities aiming to promote autonomy in English course books are 'often presented in an unprincipled and unexplicit way', concluding that materials writers are probably overwhelmed by the necessity to include many other learning goals (cf. Sinclaire, 1996, p. 149).*****deleted.¶

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Dickinson (1987, p. 69) also does not see the: ready supply of available materials as offering 'a complete solution to providing materials for self-instruction', since the reality behind the claim of suitability for self-instruction often consists of little more than the addition of an answer key, and perhaps some notes on the answers.

As stated in the findings of the needs assessment, to locate the most suitable materials requires the selection of both the content and language skill. Since students found that the practice of language skills was most important for them, the materials should be focused on language skills or the practice of language skills to enhance them for their further study. At the same time, teachers found that the content in subject specific areas was important as well. Thus, it is suggested that materials written by teachers who will put together language skills and content in subject-specific area in the texts would be most suitable for students.

Sub-question 2: What teaching styles and modes of delivery need to be included in the design of a successful self-directed English language program for architecture students?

The findings showed that there are differences in teachers and students' responses towards the English for Architecture Program. Both of them were asked in terms of their needs and attitudes towards the course. They did not

reject the idea of a self-directed learning approach but they wanted it to be one that was especially adapted for them. Students were becoming used to doing project work during their study, thus, they found a self-directed learning approach suitable for them.

Firstly, the findings showed that students preferred studying independently. They also wanted to use websites as a means to learn. However, they still wanted their teachers to support them.

Secondly, the findings showed that teachers still wanted to have a role in the classroom. However, teachers did not reject the idea of a self-directed learning approach. Teachers also found it useful as long as it could help students learn more.

The teaching styles for the English for Architecture Program should foster collaboration among teachers who decided what to teach and the way to teach including the assessment. Students should also be informed as to what role they should play. Materials should be focused on the subject-specific area together with a self-study plan. Then, assessment should be focused on the individual by means of, for example, portfolio assessment.

This study has found that the program designed for architecture students required four basic factors in teaching and learning: materials, skills, teaching techniques and assessment. For materials, materials designed by teachers would be recommended rather than commercial texts. Skills to be taught should be the integrated but the skills to be emphasized should be listening, speaking, writing and reading. Teaching techniques should emphasize self-directed learning with the assistance of computers. Assessment should be carried out at both group and individual levels. It was suggested that self-assessment should also be given to students. A portfolio should be used in the English for Architecture Program since these architecture students are used to undertaking project work and a portfolio could be one way for them to choose in order that they can bring out their ideas, create their own work and work on their own.

Sub-question 3: What are the benefits of self-directed learning in the teaching and learning of English to second-year architecture students?

The findings showed that the students found that the traditional way of teaching and learning to be boring and so they chose an alternative way. Students wanted to study independently and work on their own. Thus, self-directed learning could be the best way for them. Besides, students were used to doing individual project work in the architecture area, thus, they might find the project work in English suitable for them.

The interviews revealed that students had a variety of skills on which they tended to focus. This means that students had their own way of doing things and their own preferred skills. Self-directed learning could help them practice the skills they wanted. One important benefit that students could get from a self-directed learning approach was that confident to assume responsibility for their own learning. This would encourage them to study and work independently in their future career and might encourage students, who are accustomed to following and respecting their elders, to be more confident in their own thinking. Furthermore, a self-directed learning strategy could be formed in each student thus leading them to engage in continuous improvement of their language skills. Most importantly, self-directed learning could be regarded as a tool for those students to use in their future life. No matter where they subsequently worked or studied, they could use self-directed learning to learn and enhance their knowledge and skills. As a consequence, lifelong learning would be encouraged in Thailand.

Summary of findings

The findings of the needs assessment undertaken with teachers and students indicated that significant differences existed between students' and teachers' perceptions of the English for Architecture Program. To begin with, the architecture students would rather have their teachers to be guides in the classroom; at the same time, they wanted to study independently. They believed that independent study would suit them as long as they can do their

project work as well. However, teachers would rather still have a dominant role in the classroom. This may be due to the traditional Thai way of teaching that encourages the teachers to be the manager in the classroom. Besides, since Thai culture expects young people to defer to their elders, Thai teachers are thus accustomed to teaching in the traditional way.

The needs of students and teachers were different in that they had a different role in mind. To serve and enhance the teaching and learning in the current situation according to the findings of needs is to provide both independent study to students and maintain the role of teachers who still want to play their role. Teachers may have to adapt by changing their role from being a controller to being a facilitator. This is not an easy task since teachers are still sticking to their beliefs. Besides, architecture students need teachers as their supporter even though they want to study independently. The best way to solve this situation is to implement self-directed learning which would enhance students to study independently while teachers still assign tasks for them. This means that the needs of both teachers and the architecture students can be met to a certain extent.

This study showed that teachers still want to have two roles. On the one hand, they want to be the manager in the classroom and control the classroom setting; on the other hand, they want to use self-directed learning approaches when teaching. They do not want their students to get bored with the classroom. Thus, teachers need a syllabus which clarifies their role: what they should and should not do. For example, in the classroom when teachers assign students to study on their own, teachers could let them study independently. However, teachers need to explain and give the input in terms of the content and language skill to students as an example before letting them study on their own. To facilitate teachers and encourage self-directed learning, the teachers need to understand their role clearly: what to do and what not to do.

From the students' perspective, they also wanted to study independently and use websites. Technology thus needs to be integrated more into the teaching and learning in the current situation.

It is clear that materials should be specially designed for the English for Architecture Program. Students indicated that they need to practice language skills as well as expand, more widely, their subject-specific skills. Teachers indicated that writing their own materials would serve their students better. At the same time, in a self-directed learning approach, students are going to be exposed a much wider variety of other kinds of materials as they study independently. Thus, guidelines are required to assist in setting the goals and criteria for the students.

In the next chapter these findings will be discussed and implications drawn.

CHAPTER 5

Discussion of Findings

Introduction

This chapter provides a comprehensive account of both the qualitative and quantitative findings concerning teachers' and students' needs towards the implementation of a self-directed learning program. This study adopted a Proactive Evaluation to identify the preferred practice and the needs of architecture students for new English for Architecture Program.

In order to identify whether self-directed learning is suitable for architecture students, a Proactive Evaluation was adopted to identify the needs of both teachers and students.

The main research question in the study was as follows:

What are the essential elements of a self-directed English language program for architecture students at Chulalongkorn University, Thailand?

The related sub-research questions were:

1. **What teaching styles and modes of delivery need to be included in the design of a successful self-directed English language program for architecture students?**

2. **What are the benefits of self-directed learning in the teaching and learning of English to second-year architecture students?**

3. **What kind of materials and content do architecture students require, and prefer, in order to experience success in English?**

The data was obtained in two parts. Part 1 was concerned with a research review which included the preferred practice of teaching those teachers are having and want to have. As for preferred practice, the discussion of findings is divided into two parts; namely, the first part concerns a research review which reviews the traits of self-directed learners. The second part concerns the survey and semi-structured interview of teachers who were teaching English for Architecture Program. The findings of this part identify the characteristics of self-directed learners in theory and the opinions of teachers who are teaching those architecture students. Thus, the findings should help identify the idealistic of self-directed learner in the current situation.

Part 2 was concerned with a needs assessment which involved the inquiry of both teachers and architecture students. For the needs assessment, the discussion of findings is divided into five subsections which address the issues of the needs of the students towards the English for Architecture Program using a self-directed learning approach in the following categories: teacher's role, materials, skills, preferred practice of teaching and assessment.

In the first section, the findings of Part 1 – the research review of preferred practice and the needs assessment – will be discussed. In the second section, an outline of a proposed new program in English for Architecture will be presented.

Review of Preferred Practice

The review of preferred practice is divided into three parts: research review, questionnaire and interview. The aim of this part was to gain more understanding of what teachers found important in the classroom. The

research review part focuses on self-directed learning applications and the important features that self-directed learners should possess. This is followed by a discussion of the findings of the data collected by questionnaire and interview. The final set of findings in this part will be used as guidelines for a self-directed learning approach.

Research Review

In the research review, self-directed learning was explored in terms of its language learning strategy and the traits of self-directed learners. It is obvious that self-directed learning requires the involvement of the learners themselves. The learners need to gain more confidence and be innovative in what they learn. Learning as a process is suggested in the review since it is believed that the development of learning in the individual involves time.

Six traits of self-directed learners were mentioned in the review; namely, student motivation, goal orientation, locus of control, self-efficacy and self-regulation. Student motivation is needed to encourage students to learn. In fact, motivation is the key factor in a self-directed learning approach. It is believed that once learners are highly motivated, they will achieve a great deal in their study. Goal orientation is another important factor in a self-directed learning approach. To enhance those learners to be self-directed learners is to ask them to set goals, together with their teachers. This is an ideal for the teachers, but it can be turned into practice if teachers let students identify their goals at the very beginning of the course. Locus of control is another factor that self-directed learners should have. The personality of each learner is likely to identify whether they can have locus of control and can develop themselves to be self-directed learners. Self-efficacy is a personal judgment of competence which requires learners' competence when studying. Self-regulation is another factor that can help learners to be self-directed. The learners should have self-regulation to control interest, attitude, and effort towards a goal.

The most important factor revealed in this research review is metacognition. There are three components involved in metacognition: awareness, knowledge and control. Metacognition is the ability of learners to analyse, reflect on and understand their own cognitive and learning processes. Learners who have such ability can be good self-directed learners since this requires application of the total ability in learning especially when they can use language learning strategies in the right context. To conclude, Cyril Houle (1988) identified three reasons why people pursue self-directed learning:

1. to accomplish a specific objective;
2. for the love of learning;
3. the enjoyment of the related activities and environment requires an intrinsically motivated person.

To sum up, the research review of preferred practice revealed how students could develop themselves to be self-directed learners. Besides, teachers could realize such characteristics required and they should try to enhance their students to possess such traits. Thus, the new program should contain the six traits of self-directed learner in its approach and teaching methodology. Simultaneously, six traits of self-directed learners should be introduced into guidelines when designing English for Architecture Program. Most importantly, strategies in developing students to be self-directed learners should be suggested in the new program.

Survey of preferred practice

As for the survey of preferred practice, the topics related to teaching elements in the classroom were selected. Twenty teachers from the division of English for science and technology were given questionnaires to fill in. Five aspects related to their teaching were asked about the following: role of teachers, role of students, learning style, materials and assessment.

Role of teachers

It was as expected that teachers still found their own role important. This reflects both Thai culture and the resistance to change found in all societies. Once an approach has been practiced, it becomes 'traditional' and it continues to be practiced to the present time. Teachers tend to feel satisfied with their role and resist change: they believe that the traditional approaches will help their students. This also reflects that part of Thai culture which requires that elders should take care of youngsters throughout all of their life. Thus, change for Thai teachers is difficult.

Role of students

It was surprising, then, that the teacher responses showed an acceptance of independent learning. Teachers agreed that students should manage themselves when studying.

Learning style

It was as expected that teachers found that the learning styles employed should be adapted to include self directed learning. They accepted that there is no single suitable learning style that will meet the needs of all students. Due to differences in their backgrounds, personalities and especially their major subject, architecture students seek variety when learning. Consequently, self-directed learning was an alternative way that teachers would like to explore.

Materials

Teachers believed that they should write their own materials. Teachers did not believe that there were suitable commercial texts for any English for Architecture Program especially for architecture students. My study confirmed this: no commercially available English texts for architecture students appear to be available. Unlike business English, commercial texts in

the field of architecture are too specialist a market for publishing companies to be interested in taking on.

Assessment

It was clear that assessment should be in the form of group assessment. Some individual assessment was acceptable, but only by means of a portfolio which should form part of the whole assessment.

This research indicates that in the new program the roles of teachers and students need to change. Teachers should reduce the prominence of their role when teaching, and the methodology applied in the course should shift to focus on students and their activities. The new program should encourage teachers to design and write their own material. For the overall assessment, group and individual assessment results should be combined.

Semi-structured interviews

In order to gain in-depth information regarding teachers' opinions about self-directed learning, semi-structured interviews were undertaken with six teachers from the division of English for science and technology.

Role of students

This aspect of the research revealed that the teachers still found their role important; nevertheless, they wanted to encourage their students to be self-directed learners. Thus, students would be allowed to learn on their own but with a degree of guidance from teachers. Therefore, a self-directed learning approach in the study should be a part of all teaching. It was encouraging that teachers did not deny a self-directed learning approach; instead, they wanted an adaptation of the self-directed approach.

Role of teachers

The teachers' responses showed that they still found their role important. They could not allow their students to study alone and without some level of guidance; such a step would cause teachers to feel guilty because of neglect. Teachers then found that they should guide their students although they allowed them carry out independent study. To conclude, self-directed learning in this context should be adopted.

Learning style

The interviews showed teachers supported a self-directed learning approach in the classroom. While wanting some kind of adapted approach, they did not reject the idea of letting students develop by themselves. On the contrary, they agreed to personally assist in enhancing the opportunities for students to practice English.

Materials

Teachers' responses showed that ready-made materials were not as suitable as tailor-made materials. They would rather write their own materials to suit the needs of their students.

Assessment

All teachers agreed that assessment can be in the two forms: formative and summative assessment.

It is quite evident that self-directed learning in the study is accepted by teachers who wanted to enhance their students' English. Teachers found that a self-directed learning approach might be an alternative way to teach. Teachers, in fact, wanted to design the teaching methodology themselves – one which they saw as an adaptation of a self-directed learning approach.

Summary of discussion of preferred practice

The practice preferred by the teachers was that of an adaptation of a self-directed learning approach. The teachers agreed that students should have a chance to study on their own and to follow their own particular interests; so a self-directed learning approach would enhance these two aspects. Thus, the new program should contain a new teaching methodology that should encourage students to develop as self-directed learners using materials in the English for Architecture Program that would be written by the teachers. Assessment should be in the form of both group and individual assessment.

Components of preferred practice

Essential elements

The teachers indicated that self-directed learning would help their students and, thus, they believed that this should be an alternative approach in the changing context. Teachers agreed that students need to be exposed to a new way of teaching in which computer technology and websites would play an important part in the life of those students and teachers. Interestingly, they acknowledged that a traditional way of teaching was no longer suitable; however, they chose to follow an adaptation of a self-directed learning approach. Such an approach was supported by the positive attitude of both teachers and students towards a self-directed learning approach. This research also suggested the design and production of materials that are specially designed for architecture students. These materials should serve as a means to encourage students to be self-directed learners.

Styles and modes of delivery

The research revealed that while they retain an obligation to take care of their students and that they have a belief that students need help, guidance and direction in learning English, the teachers had a positive attitude towards a self-directed learning approach. The teachers realised the importance of

allowing students to have a significant role in their English language learning and in encouraging them to study English on their own. In considering teaching styles and modes of delivery in the design of a new English for Architecture Program, the findings suggest that teachers wish to retain elements of a traditional way of approach while encouraging their students to be independent in their learning. Thus, teaching styles with a combination of both traditional way and new way of approach should be considered. This would retain an important element of Thai culture that respects the importance of seniority: the teachers would still be able to fulfil this cultural role while students would have a chance to study independently. Thus, it is recommended in the new program that teaching styles should try to combine a student-centred approach while maintaining an appropriate proportion of teaching with teachers taking a traditional role.

Teaching styles in the new program should show variety; teachers have their own experience which they should be encouraged to adapt the teaching style they think most suitable for their students; students should have a chance to practice and develop their own way of learning under an adaptation of self-directed learning. Different styles and modes of delivery should be suggested in a teachers' manual in order to provide support for teachers working with a range of students who have different levels of ability – from those the teacher regards as 'fully independent learners' to those who are 'partly independent learners', a distinction based on whether the students are good or weak in English.

Benefits of self-directed learning

An adapted self-directed learning approach would be expected to enhance the English language skills of second-year architecture students and their teachers in a number of ways. Firstly, students would have a chance to develop at their own pace. They would gain more confidence in their own learning, creating their own style of learning and using self-motivation to enable them to gain the utmost benefit from their learning. Secondly,

teachers would have the opportunity chance to create materials that will best suit their needs. Teachers also would be encouraged to develop new ways of teaching using computer technology and websites. This would help teachers to improve their computer skills as well as broadening their view of teaching. Thus, self-directed learning would bring benefits to both students and their teachers.

Materials and content

This research indicates that, due to the lack of commercially available resources, materials to be used with architecture students need to be tailor-made. The teachers to be involved in this process need to be chosen carefully. They should be encouraged to share their ideas in order that they can find the most suitable materials for their students. These materials could be in the form of tailor-made texts, architectural journals, and websites containing up-to-date and relevant information on architecture. The content needs to focus on architecture while, at the same time combining with English study skills. Architecture students in their second year will be exposed to technical terms and they have many projects to undertake. They will need to search for information within their chosen major areas; namely, landscape, architect, interior design and industrial design. It is, therefore, particularly important that the English language content of the English for Architecture Program should be focused on these four areas of study.

Discussion of the Needs Assessment

The second phase of the Proactive Evaluation was a Needs Assessment. A Needs Assessment questionnaire was completed by both students and teachers: that for the students involved two phases – prior to and after initial exposure to the English for Architecture Program – so that comparisons could be made between initial expectations and actual experiences. That for the teachers involved just one phase and was undertaken to check on

similarities and differences between the views of teachers compared with those of the students. Semi-structured interviews were used with the two groups in order to gain in-depth information in terms of needs.

Teachers' role

Students and teachers expressed a different set of needs regarding the teachers' role in ensuring that teaching and learning are adjusted to suit each group. The teachers needed to retain an important role important while students needed the teachers, but in a lesser role, with respect to self-directed learning. Clearly, a self-directed learning approach requires teachers to change their role. An English for Architecture Program, focused on a self-directed learning approach, would mean that teachers need, as a minimum, to adapt to a new role in the classroom: using a mix of traditional teaching, enhanced by the use of computers. This supports the view of Srisa-an (1998) and Nakornthan (2000) who state, unequivocally, that teachers have to play new roles in today's technology-based learning to respond to the National Education Act of 1999.

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The research literature provides guidelines that help to support the adoption of self-directed learning. Mezirow (1981) has described 12 activities fundamental to the enhancement of learners becoming more self-directed in what he calls a 'charter for andragogy'. For facilitators this involves helping learners participate in various activities, including the assessment of personal needs, planning subsequent learning activities, securing or creating necessary learning resources, and assessing personal progress in achieving learning goals. Schuttenberg & Tracy (1987) believe there are many different roles a facilitator should assume, including that of a leader, collaborator, or colleague, in promoting varying types of self-directed behaviour. In other words, a facilitator is not just a classroom teacher, but also can be a counsellor, consultant, tutor, and resource locator. Teachers nowadays have to adapt themselves to meet the demands of the current situation. They should lessen their role and encourage students to be self-

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directed learners. It may be difficult for those teachers who have been used to teaching in a traditional way for more than ten years. A suggestion is made by Dickinson (1987, p. 122) who gives a view on the role of a teacher as follows:

> The ideal helper is warm and loving. He accepts and cares about the learner and about his problems, and takes them seriously. He is willing to spend time helping. He is approving, supportive, encouraging and friendly, and he regards the learner as an equal. As a result of these characteristics, the learner feels free to approach him and talk freely and easily with him in a warm and relaxed atmosphere.

This idea could help teachers think of ways they should follow and adjust their role in a classroom in an adaptation of a self-directed learning approach.

Materials

The findings showed that materials for the English for Architecture Program should be specifically designed for architecture students. It is not easy, though, to find the ready-made texts for English for Architecture Program students. Teachers' responses revealed that teachers prefer writing their own materials and they found the subject-specific content important for their students; however, students indicated that they wanted to be exposed to language skills and to be able practice such skills. Students expressed a need for content that was subject-specific. There was a consensus between the two groups that the content should be supported by 'tailor-made materials rather than commercial texts'. Materials are not simply the everyday tools of the language teacher; they are an embodiment of the aims, values and methods of a particular teaching/learning situation. Hutchinson et al. (1987, p. 37) emphasises that 'the selection of materials probably represents the single most important decision that the language teacher has to make'. There is a need that the materials for the English for Architecture Program – especially if they are to be suitable for an adaptation of a self-directed learning approach – should be readily available and that they should be suitable for

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the particular level of students as well: as a student of architecture, and as an English language learner. Materials and resources for these learners should enhance individuals in terms of varied learner needs, pacing requirements, and plans.

Language Skills

With respect to required language skills, there were similarities and differences. Students and teachers both emphasized the importance of writing and reading; students, however, varied the importance of their rating. Some students rated writing as the most important, both in their studies and in their assignments; others rated reading as most important. Some students spoke of their feelings of inferiority when they could not write grammatically correct sentences. Teachers listed all four language skills as being important, but rated writing as the most important skill followed by reading, listening then speaking in order of importance.

Preferred practice of teaching

The Needs Assessment showed that architecture students prefer studying independently. Teachers, however, still regarded themselves as managers in the classroom. To link the gap requires mutual understanding between the two in order that a self-directed learning approach could be enhanced. Teachers should lessen their role and try to encourage students to study on their own. This can be done by using task-based activities which could be focused on the students; meanwhile, teachers still need to maintain their role as the controller and guide of the activities. This coincides with the view of Brockett & Hiemstra (1991) who emphasise the importance of both process and predisposition of the learner in self-directed learning:

> Self-direction in learning has been described both as a process and as a psychological predisposition of the learner. Self-directed learning is a very natural process, and each person is a self-directed learner to some degree.

The Needs Assessment indicated that students have a differential need to become self-directed learning learner: they prefer studying alone, but they need their teachers' guidance for some of the time. Encouragement to become self-directed learners is useful to them; however, students and teachers need some idea of what a successful self-directed learner should be. Guglielmino (1977, p. 73) reports that when a group of experts was asked to describe learners who would be likely to be successful in self-directed learning, they arrived at this consensus:

> A highly self-directed learner is one who exhibits initiative, independence, and persistence in learning; one who accepts responsibility for his or her own learning and views problems as challenges, not obstacles; one who is capable of self-discipline and has a high degree of curiosity; one who has a strong desire to learn and change and is self-confident; one who is able to use basic study skill, organize his or her own time, set an appropriate pace of for learning, and develop a plan for completing work; one who enjoys learning and has a tendency to be goal-oriented.'

A problem for the architecture students undertaking the English for Architecture Program is that they need guidance but they still want to study independently. It means that students are differentially prepared to be self-directed learners; the extent to which they can succeed depends on their previous learnings. One suggestion for the revised English for Architecture Program, which involves 120 students who are willing to study both independently and to learn with guidance, is that students should collaborate with their peers. The likely outcome would be students who feel more confident since they could ask their friends for help; meanwhile they would still be able to study on their own. Such a structure, it is suggested, would help enhance the level of independent study amongst students.

To conclude, teachers are the people who can help students to be self-directed learners. Dickinson (1992, p. 2) identifies six ways 'in which the teacher can promote greater learner independence':

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1. legitimizing independence in learning by showing that we, as teachers, approve, and by encouraging the students to be more independent.
2. convincing learners that they are capable of greater independence in learning- give them successful experiences of independent learning.
3. giving learners opportunities to exercise their independence.
4. helping learners to develop learning techniques (learning strategies) so that they can exercise their independence.
5. helping learners to become more aware of language as a system so that they can understand many of the learning techniques available and learn sufficient grammar to understand simple reference books.
6. sharing with learners something of what we know about language learning so that they have a greater awareness of what to expect from the language learning task and how they should react to problems that erect barriers to learning.

Assessment

Students indicated that they preferred group assessment to individual assessment. Individual assessment, they reported, made them very nervous whenever they were to be assessed. Group assessment would help reduce this feeling; as well, it would give them a better understanding of their relative ability. As one student indicated:

> … I am nervous when I have to take the exam. I prefer taking the exam in a group rather than individually since I want to know how good I am compared with my friends.'

The students, however, did not rank individual assessment highly since they did not see its use or advantage. The only purpose of the assessment for them

was that they could use it to recognise how well they were doing in their study. They expressed their opinion regarding this as follows:

> Assessment is the duty of my teacher and I have to follow that. All I have to do is to do the test and be evaluated.

The teachers agreed: they seemed to be satisfied with group assessment rather than with individual assessment. The majority agreed that both formative and summative assessment is important: formative assessment can be carried out individually, and summative assessment could be done in groups in an equal ratio. Some teachers, however, expressed an interest in developing a self-assessment approach:

> I think that the existing assessment should be adapted if we want to use a self-directed learning approach. Just let students assess themselves, e.g., using a portfolio and letting them write the self-evaluation report.

This idea seems to be consistent with the situation. Development of appropriate criteria would, however, be needed. If an adaptation of a self-directed learning approach is to be introduced then the assessment methods should be relevant to this: ideally, self-assessed. It is reasonable to assume that autonomous learners would benefit from feedback on achievements in their learning through engaging in some kind of assessment procedure. Self-assessment seems to accommodate itself much more easily to the diverse and flexible requirements of an autonomous learner, as the above argument suggests. Thus, self-assessment is needed as one way for learners to check their progress and improvement.

In order to implement self-assessment in the English for Architecture Program, some factors need to be considered. Firstly, teachers have to change their role. This would be the same as learners who have to change their role. Once the teachers enact their roles in facilitating the learners to use self-assessment, the learners can develop the skill and use self-assessment correctly.

Summary

Needs assessment is a key approach in a Proactive evaluation. The findings of the needs assessment undertaken with teachers and architecture students helped identify the real needs and problems in the current context which would have to change according to external and internal factors – namely, the shift in Thai public education policy, changing trends in teaching and learning, and moves towards a student-centred approach. Such factors lead to a change in the teaching and learning situation, a change in which some teachers found themselves reluctant to be involved. Needs of students might help identify what they really want and needs of teachers would indicate what they want to teach. In order to implement a change in this context, a Proactive Evaluation was chosen as the program already exists and the findings of needs would help us decide in terms of what to teach and change.

Self-direction in learning has been described both as a process and as a psychological predisposition of the learner (Brockett & Hiemstra, 1991). Self-directed learning is a very natural process, and each person is a self-directed learner to some degree. To encourage architecture students to take on self-directed learning requires understanding and collaboration between teachers and students. The implementation of any theory could not be successful if it did not suit the particular context. This is quite important for the English for Architecture Program which is intended to serve architecture students. The change has to be made specifically for them; thus, their needs should be regarded as paramount.

The Needs Assessment helped to identify differential needs of students and teachers. These, in turn, focus on five needs areas: the teacher's role, materials, language skills, preferred practice and assessment. Each area has an effect on the needs of the new program; these, in turn, will impact on the teachers who are going to design English for Architecture Program: they will be able to use the information and findings of needs in order to write and design appropriate materials. Firstly, however, they will need to consider

changes in the teachers' role as determined by both the teachers and the students. Materials should be designed by the teachers who are going to undertake the teaching. Language skills should include writing, reading, listening and speaking in that order of importance. For the preferred practice of teaching, teachers should try to change and adapt their way of teaching to suit their students' needs. For assessment, self-assessment should also be included in the new program.

A Needs Assessment has been important in the study since it helped identify the needs of both students and teachers who will be affected by a new way of teaching. Such findings of needs provide useful guidelines in designing an English for Architecture Program using an adaptation of a self-directed learning approach.

Program Policy Advice

In the final stage of the research the outcomes from the Research Review were combined with the Needs Assessment finding and used to prepare the Program Policy Advice document that contains essential elements for the design of a successful self-directed English-language program for second-year Architecture students at CULI. The Program Policy Advice document included the following topics: faculty staff, resources and budget.

Faculty staff

With respect to a self-directed learning approach, the teaching staff will have to adapt to a new situation: they will have to change. How are they going to do this? Teacher training in a particular field should be encouraged. Teachers should be trained in terms of materials writing as well. The findings showed that students preferred texts written by the teachers: the consequences of this finding needed to be addressed.

Resources

Once a self-directed learning approach is to be implemented, one medium that will encourage students to study independently is computer technology. It is unavoidable that the changing of the lifestyle of people at present is caused by the introduction of technology. Use of computers and websites are resources, the use of which must be considered alongside texts and commercial texts.

Budget

Once the program policy is drafted, a budget is needed; this is a most important part in implementing any change. A self-directed learning approach is a change for those teaching staff who have been working for more than ten years. They need some kind of training. Besides, resources need to be acquired and be well-prepared for the use of architecture students.

Outline of the Proposed New English for Architecture Program

To serve the needs of students and teachers, the existing English for Architecture Program should be re-designed. The re-design should take five factors into consideration: the role of the teachers, the materials made available, the language skills to be emphasised, the preferred practice of teaching, and the balance of assessment tasks required. These factors are incorporated with program name, objectives and a summary description to provide the elements of the new program. These eight elements are presented in Figure 5.1.

FIGURE 5.1 PROGRAM ELEMENTS FOR AN ADAPTATION OF SELF-DIRECTED LEARNING PROGRAM IN THE ENGLISH FOR ARCHITECTURE PROGRAM

Program Element	Detail
Name	An Adaptation of Self-Directed Learning English for Architecture Program (ASDL English for Architecture Program)
Objectives	To enable students to acquire and possess English language skills.
	To enable students to communicate and use English language efficiently.
	To enable students to use English language in a context of the subject-specific area.
Teachers' Role	Facilitator, consultant and guidance
Materials	Tailor-made materials prepared by teachers
Language Skills	Integrated skills with the emphasis on writing, reading, speaking and listening.
Preferred Practice of Teaching	An adaptation of a self-directed learning approach Traditional approach with the use of computers.
Assessment	Group assessment – 60 per cent
	Individual assessment – 40 per cent
Summary description	It is suggested that the new program should encourage individual study by requiring students to undertake project work and for teachers to act as consultants. Students are required to do assignments and submit their work according to prescribed dates. Simultaneously, students can search for the information on websites and in books, and choose the topics of their own interest.

The study showed that new trends in teaching and learning require a change in terms of the teachers' role in this program. Teachers need to lessen their direct teaching and increase their function as a facilitator in the classroom. Sometimes they can be a consultant when their students need advice and have problems. Teachers should guide their students to seek the way of learning that best suits their individual needs: self-directed learning aims to enhance learners to practice and find their own way of learning. Student motivation is a key factor to encourage students to learn in a self-directed way.

Materials designed by their teachers will be most suitable for the situation since students find that such materials will best suit their needs. Teachers who are teaching these students have a good understanding of what students want. These materials should support the four language skills. Writing is the most important skill, as teachers and students, alike, regard and see the benefit of it in the future both in the study and the work. Reading, speaking and listening were ranked second, third and fourth, respectively, and this ranking of importance should be apparent in the course design.

The preferred practice of teaching requires an adaptation of a self-directed learning approach; this will provide the best solution to the current situation, provided the teachers accept that students need guidance and, conversely, the students will allow themselves to be guided by their teachers. An adaptation of self-directed learning appears to be suitable in the English for Architecture Program.

Assessment should be a mix of group and individual assessment in the ratio of 60:40, taking into account the preference of the teachers over that of the students. The latter had suggested an equal weighting, but, at this stage the more conservative step is recommended.

The findings from the two phases of data collection – the Review of Preferred Practice and the Needs Assessment – provide a basis for the outline of the proposed new English for Architecture Program. The change to an adaptation of a self-directed learning approach was accepted by the teachers in the survey, all of whom have a common goal of encouraging their students to be competent in the four English language skills. The new program should reveal that the teachers accept such a change. Since the teachers still find traditional methods important, the new program should, however, combine both traditional and new ways of learning. Teachers who are to teach in the program should design and develop their own materials, taking into account the special needs of architecture students indentified in the Needs Assessment. Topics and content should cover their four major areas of study

– landscape, architect, interior design and industrial design. Integrated skills should be focused and each skill is to be emphasized. Assessment should consist of two forms: self-assessment and group assessment.

The new approach, however, cannot be practiced all at once. Training and orientation for teachers need to be undertaken. A teacher's manual containing appropriate guidelines should be prepared for all teachers. The most important thing is that teachers should have a chance to share their ideas and suggest what should be the most suitable way of introducing an adaptation of Self-Directed Learning Program in the English for Architecture Program (ASDL English for Architecture Program). An outline of the new program is summarized in Figure 5.1.

In the final chapter, these program elements will be integrated into a summary of the findings of the research study. A reflection on the research process will conclude the study.

Chapter 6

Summary, Recommendations and Conclusion

Introduction

This final chapter presents a summary of findings of the research study that provide answers to the research questions. The chapter also presents the limitations of the study, implications derived from the findings, and recommendations for future research. The chapter concludes with a reflection on the research process and concluding remarks.

Summary of the Findings

This section briefly provides direct answers to the research question which are one main research question and three related sub research questions, presented earlier.

Teaching styles and modes of delivery

Teaching styles and modes of delivery are an essential part in designing a self-directed learning program. Teaching styles and modes of delivery, of course, will almost certainly be different, depending on the individual teachers' capacities and interests. Teachers of English in universities are free to choose the teaching style they find most suitable for them and their students. Currently, the common teaching style for Thai teachers tends to be focused on their role as a manager in the classroom. They teach to encourage

students to use English as well as control students to follow the lessons. Modes of delivery vary; they very much depend on the teachers' personal preferences. Generally, skills in English are divided into two modes: receptive and productive skills. Listening and reading skills are receptive skills while writing and speaking skills are productive skills. Appropriate choice of the most effective modes of delivery will help students practice and improve each of these four skills.

As can be seen from the findings, students perceived self-directed learning as an alternative way of teaching; they were accepting of this kind of approach. This may be due to the nature of their learning style in a subject-specific area that focuses on project work. This group of architecture students found that they prefer studying independently. They are used to working on their project work and in creating their work independently; however, they still need some guidance from their teachers. It seems that students need more confidence to help them develop their learning skills.

From the findings, it is recommended that the teaching styles for Thai architecture students should be a combination of eastern and western style: this was the preference in this particular Thai context. Thai culture encourages obedience amongst students and this leads to their passivity. As a consequence, Thai students find it normal to listen to their teachers and take note of what they have been taught. The English classroom can, however, offer more than this. Some Thai students in this study, for instance, have indicated a preference for studying on their own, including searching for information by themselves. A combination of both teaching styles is likely to be suitable for those students in the Thai context.

If a combination of these two styles is to be successful, the teaching methodology must be concerned with facilitating and promoting the process of informed learning rather than with the content of that learning. To design a successful self-directed English language program for architecture students requires a combination of self-directed learning approach and the existing

one. This should be done in order to avoid radical change in the context, and to overcome the reluctance to change from both teachers and students. Little (1995, p. 176) and Dickinson (1987) point out that learners do not automatically accept responsibility in formal contexts and do not necessarily find it easy to reflect on the learning process. Teachers must therefore first provide them with appropriate tools and with opportunities to practice using new approaches.

For the existing English for Architecture course, it is recommended that, as a general principle, collaborative learning should be applied. Collaborative learning requires collaboration among the students and with their teachers. The teachers need to be engaged in task-based activities related to the development of the four language skills: listening, reading, writing, and speaking.

Benefits of self-directed learning

A self-directed learning approach was considered, as part of a Proactive Evaluation, in the study as an alternative way of teaching and learning in the English for Architecture Program. Architecture students indicated that self-directed learning was an acceptable approach for them while teachers partly agreed to this. Teachers, however, had some reservations whether or not self-directed learning might help their students improve their English language. Teachers indicated, on the other hand, that they had problems with the existing course and that they needed something new to help them – a self-directed learning approach went part-way to meeting this need.

The findings indicated that architecture students were comfortable with a self-directed learning approach since they prefer to study independently. They found it more rewarding when they were able to learn on their own.

The findings from the two phases of the Proactive Evaluation indicated that a self-directed learning approach answered specific needs of

both students and teachers. For students, a self-directed learning approach was seen to enhance the development of their own responsibility by making them responsible for their own way of learning. The findings revealed that students employ diverse ways in improving their language skills: this diversity was able to be accommodated by the self-directed approach which encouraged students to follow their own particular learning preference. Students were more likely to be motivated to study as long as they were able to choose what and how to learn on their own; when encouraged to participate in collaborative learning, students developed pride and confidence in their own ability to work with a group and to help their friends. Such development, overall, is likely to help encourage Thai students to be more responsible and independent as adults.

For teachers, self-directed learning was likely to eliminate the problem of students finding conventional classes boring. Using a self-directed approach, students were able to learn on their own. The teachers, however, still have an important role in the program; in particular, they must be well-prepared to be effective advisors and consultants. The teachers would benefit from a self-directed approach: they would be able to engage in personal self-development and would have time to be better prepared for their students.

Materials and content requirements

For materials in the English for Architecture course, the findings revealed that students and teachers preferred to use tailor-made materials. They found that commercial texts did not contain sufficient content to meet the needs of students. In particular, there are four major subjects which architecture students at Chulalongkorn University must choose when entering their second year: Landscape, Interior Design, Industrial Design and Architecture; elements of these four major subjects need to be included in the tailor-made materials prepared for these students.

The four language skills must also be emphasized since practicing language skills can be a tool to understand and learn more in the English for Architecture course. The second-year architecture students indicated that they want to practice language skills as well as study English in subject-specific areas. Materials and content therefore need to focus on both subject specific area and the four language skills. Teachers need to write task-based activities to enable English for Architecture students to practice in the classroom. At the same time, materials for independent study – in the form of website materials – need to be provided for the students. Using these materials, the students would be able to study on their own as well as completing tasks assigned by their teachers.

Essentials elements of a self-directed English program

Specific goals and tasks for the English for Architecture Program for architectural students should continue to be established by the teachers; at the same time, the teachers need to accommodate a range of teaching and learning approaches to take into account different ideas towards teaching and learning. The teachers need to provide task-based activities that will encourage students to study on their own. The tasks would be chosen by the students according to their specific needs and interests – after mutual agreement between teacher and student has been reached.

A self-directed learning approach focuses on the learner as an individual learner; therefore, the students in the English for Architecture course need to be encouraged to realize the importance of both their own role and the role of their teachers. Students who choose to study independently would still need guidance from teachers. Teachers, however, have to lessen their role; consequently, an essential focus of the English for Architecture Program needs to be encouraging students to use collaborative learning in which they seek help from their friends and from independent research, using web-based sites.

An essential element of a self-directed learning program for architecture students is the need for them to develop as self-directed learners. This is not an easy task. There are suggestions from research that may prove useful for the teachers. Nunan (1997), for example, has suggested that:

> encouraging learners to move towards autonomy is best done inside the language classroom.

Nunan proposes five steps that are required to achieve autonomy:

1. **Awareness:** learners are made aware of pedagogical goals, contents, and strategies.
2. **Involvement:** learners are actively involved in the learning.
3. **Intervention:** learners are encouraged to modify and adapt their goals, and their learning styles and strategies.
4. **Creation:** learners set up their own goals and plans for self-directed learning.
5. **Transcendence:** learners move beyond the classroom setting to engage in independent learning.

Thus, teachers and learners each need to be made well aware of steps such as those proposed by Nunan. The English for Architecture students need to be assisted as they work towards becoming independent learners. This development can be encouraged by their having teachers who have recognised the need for them to change their role from instructor to that of facilitator.

Overall, the most essential element in developing new English for Architecture Program is the real understanding of, and intention to adopt, a self-directed learning approach. Some opposition to this would be expected, both from students and teachers, some of whom might feel reluctant to change their role: there would be a need to encourage both of them to implement a self-directed learning approach. Fortunately, the outcomes of this Proactive Evaluation suggest that both students and teachers appear to be

willing to, and intent on, undertaking such an implementation. This throws a new and different set of teaching capacities and responsibilities upon the teachers, in particular: identifying students' learning strategies; conducting training on learning strategies; helping learners become more independent.

The findings of this research indicate that the essential elements of a self-directed English program are students, teachers, and their teaching style and materials. This approach would require the architecture students, who are used to studying independently in their course work, to realize the importance of being self-directed learners in the English for Architecture Program. The findings indicate that students had a positive view towards teaching and learning in the classroom. They were not opposed to the new approach; they seemed to be satisfied with it; they indicated that they wanted to study independently: these are clear indicators that this approach would be well-received by future students.

A self-directed learning approach will place new demands on the staff at Chulalongkorn University Language Institute: it is an alternative approach in this context. In self-directed learning, control gradually shifts from teachers to learners. Learners have to assume responsibility for their own learning. This research confirms that teachers and their teaching styles would continue to play an important part in a self-directed learning approach. Suitable teaching styles that encourage students to be self-directed learners would need to be introduced. The preferred teaching style would need to be that of both manager and facilitator. Teachers would need to encourage students to search for information both collaboratively and on their own, using computers and other sources. In all of this, students would still need guidance from their teachers.

Appropriate tasks and activities that encourage students to study independently would be needed in a self-directed learning approach. Materials to be used in the self-directed learning context would need to be specially designed for English for Architecture students: the students would

need to practice English language in their subject-specific area, undertaking activities and tasks that were designed to enhance independent learning.

To sum up, students, teachers and appropriate materials and resources are the essential elements in a self-directed learning English for Architecture Program. This research suggests that both students and teachers realize that a significant change in approach is needed. By taking the collaborative and cooperative approach encouraged by this research, a self-directed learning English for Architecture Program would be of great benefit to both students and teachers.

Limitations of the Study

This study investigated only one faculty; namely, the Faculty of Architecture which already encourages students to engage in project work and to study independently. The changes outlined by this research appear to be well-suited to such a group of students. More faculties need to be involved if the case for a university-wide self-directed learning approach is to be implemented at Chulalongkorn University.

Implications from the findings

The findings of this study should be helpful for a number of educational professionals such as English university teachers of English and curriculum developers. The key points to be noted are as follows:

- This study demonstrates that university teachers of English in Thailand show at least some support for a self-directed learning approach which is becoming more popular in the current Thai educational context.
- The use of computer technology is unavoidable in a university English language teaching context.

- The present context in which the English for Architecture Program operates enhances the students' engagement in independent study.
- The successful implementation of a shift to learner-centred learning in an English for Architecture Program requires the close cooperation and collaboration of university students and their teachers.
- The results reveal that even though university teachers show a positive attitude towards encouraging students to develop independent study skills, there is a desire for the teachers to retain their status as 'teachers in the classroom'.
- The study identifies the changes to teaching practice and the materials required by architecture students if a self-directed learning approach is to be undertaken within the English for Architecture Program.
- Students and teachers agree, to varying extents, that a self-directed learning approach in the English for Architecture Program should combine both classroom study using tailor-made materials, and the use of websites outside classroom.
- Architecture students find a self-directed learning approach suitable for their study both in English and in their subject-specific area.

Recommendations for Future Research

During the study, the researcher found that there were problems that arose after a trial of self-directed learning had been implemented. There was also a strong need to assess the students' proficiency of English – a task made more difficult, and requiring different techniques and approaches, when a self-

directed learning approach was employed. As a consequence, the following recommendations for future research are made:

- There should be an in-depth study – perhaps in the form of an Interactive Evaluation – to probe issues arising during the implementation of self-directed learning, with a view to improving, in particular, the revised English for Architecture Program.
- Students' and teachers' perceptions on self-directed learning of English in other faculties within Chulalongkorn University should be evaluated.
- Students' proficiency in English should be assessed in a further study in order to see the correlation between perception and achievement. This could identify the level of success of a self-directed learning approach.

Reflection on the Process

Since a self-directed learning approach was to be introduced to the English for Architecture Program for architecture students, an evaluation of the learning and teaching practices required was deemed necessary prior to any implementation. A Proactive Evaluation was chosen as a suitable approach within this particular context; specifically, it was undertaken to help identify the needs and problems of the existing course, as well as those associated with implementing a new approach, before any changes were made. In this Proactive Evaluation two steps were undertaken: a research review and needs assessment.

A research review was required in this study in order to identify the most practical way of teaching and learning within a self-directed learning context. The research review was undertaken in two steps: first, a research review of the literature in the area of teaching and learning was undertaken;

second, a questionnaire survey of university teachers, followed by a series of semi-structured interviews was undertaken. A needs assessment of both students and staff was undertaken in order to gather, compare and identify the needs of each group with respect to implementing a self-directed learning approach. Both questionnaires and semi-structured interview were used to elicit the information from students and teachers. The findings from both the research review and the needs assessment were used to identify common and disparate needs of both groups in order to inform the way forward in a self-directed learning approach

General Conclusion

This study aimed to explore the possibility of the implementation of the change in the context of second-year architecture students at Chulalongkorn University. A Proactive Evaluation proved satisfactory in identifying the particular needs and processes required successfully to implement a self-directed learning program.

The study showed that there was a positive attitude on the part of both teachers and architecture students to self-directed learning. Although this was a new approach, it was accepted by both students and teachers who could both foresee the change, as well as comprehend the value of using computer technology and a globalised approach to collaborative learning, particularly in English language learning.

The study revealed the importance of obtaining the agreement and cooperation of both students and teachers prior to introducing a new approach to learning and teaching.

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APPENDIX A

Information to Participants

A Proactive Evaluation of a Self-directed English language Program for architecture students at Chulalongkorn University

Researcher

I am Akara Akaranithi, a candidate in the Doctor of Education program in partnership between Victoria University of technology and Burapha University.

Aims

This project is aimed at developing a self-directed learning program for the teaching of English to second year architecture students at Chulalongkorn University, Thailand. The project will involve the completion of a number of questionnaires and a series of interviews of both students at staff. The project will consist of three phases.

Methods to be Employed

Phase 1

In this phase, first year architecture students, at the beginning of their compulsory second semester English program, will be asked to complete a questionnaire relating to the teaching and learning approaches to be used in this program. They will be asked to complete the same questionnaire at the end of the program. The responses will be analysed and differences between outcomes from the two questionnaires will be used to identify needs for a future self-directed English program.

In this phase, also, teachers who teach English to both first and second year architecture students will be asked to complete a questionnaire relating to the teaching methods employed in these programs. The responses will be analysed and a listing of preferred methodologies will be produced.

Phase 2

A 12 group of students will be invited to participate in individual interviews to explore, in greater detail, what teaching and learning activities they think should be part of a self-directed English program for second year architecture students.

In this phase, also, six members of the teaching staff who teach the second-year English Language Program will be invited to participate in a series of individual interviews to explore, in greater detail, the details of student preferences for teaching and learning activities in a self-directed English program for second year architecture students. As well, they will be asked to discuss their own perceptions of the needs of students participating in this program.

Phase 3

By incorporating the findings of Phases 1 and 2, the researcher will develop an outline of the program, including the methods to be employed, for a new self-directed English Language Program for second year architecture students.

Risks and Safeguards

All of the participants to be surveyed and interviewed are adults, nevertheless, there are risks that need to be considered and minimized. The most significant of these is the inherent Buddhist attitude of not criticising elderly and social superiors. At all stages in the research, Buddhist sensitivities and conventions will be observed. As a standard risk management technique, confidentiality will be maintained at all times and strict procedures will be developed to ensure this.

No physical risks are anticipated. As for psychological risks, there may be the risk arising with the discomfort of students who have had unpleasant experience during the first-year study. There is also a sociological risk due to Thai culture. The younger are trained to be passive with elderly. Thus, to minimize the risks mentioned, the participants will be informed in details regarding the confidentiality of the information given by them.

Any queries about this study may be directed to Ms Akara Akaranithi, a student researcher (ph. 0-6626-1204, email: Akara.A@Chula.edu.th, her principal supervisor, Dr Ian M. Ling (ph. +61-3-9688-5024 email: i.ling@bigpond.com) or her co-supervisor, Dr. Chalong Tubsree (ph. 0-38745-900 ext.2009 email: Chalongtubsree@hotmail.com. If I have any queries or complaints about the way I have been treated or to discuss my rights as a research subject, I can contact the Secretary, University Human Research Ethics Committee, Victoria University of Technology, PO Box 14428 MCMC, Melbourne, 8001 (ph. +61-3-9688-4710).

APPENDIX B

Consent to Participate in Research Study:

A Proactive Evaluation of a Self-directed English Language Program for Architecture Students at Chulalongkorn University

Researcher

Akara Akaranithi, a candidate in the Doctor of Education program in partnership between Victoria University of Technology and Burapha University.

I (name of potential participant)…… have been invited to participate in a Proactive Evaluation of self-directed language program for architecture students at Chulalongkorn University conducted by Akara.

Aims

I understand that this project is aimed at developing a self-directed learning program for the teaching of English to second year architecture students at Chulalongkorn University, Thailand.

Duration

I understand that the questionnaire associated with this study will take me no more than one hour to complete, and that there may be a subsequent face-to-face interview that will take no more than one hour to complete.

Procedure

I will be asked to answer questions about my points of view towards self-directed learning and teaching operating at Chulalongkorn University by means of questionnaire and /or interview.

Risks/Discomforts

It has been explained to me that some of the questions are very personal, involving the preferred practice of English Language teaching and learning and may cause some discomfort in answering them.

Benefits

I understand that the benefits from participating in the study may be to help researchers and those involved in the administration of the course better understand the way self-directed learning will be implemented and to prepare policy advice to enhance the effectiveness of the program, which in turn lead to the improvement of self-directed learning and the standard of English Language teaching and learning situation.

Confidentiality

I understand that a research code number will be used to identify my responses from those of other participants and that my name and other identifying information will not be directly associated with any information obtained from me. A master listing of persons participating in the study and their identifying information will be kept in a secure location under lock and key. When the results of this study are published, my name and other identifying information will not be used.

Payment

I understand that I will not be paid to participating in this research study.

Right to withdraw

I understand that I do not have to take part in this study, and my refusal to participate will involve no penalty or loss of rights to which I am entitled I may withdraw from the study at any time without fear or losing any services or benefits to which I am entitled.

Signatures

I have read this entire consent form and completely understand my rights as a potential research subject. I voluntarily consent to participate in this research. I have been informed that I will receive a copy of this consent, and should any queries arise about this study I may contact Akara, a student (Ph +06 626 1204 email: Akara.A@chula.ac.th), her principal supervisor. Dr. Ian M. Ling (Ph +61 3 9688 5085 email: i.ling@bigpond.com) or her co-supervisor: Dr. Chalong Tubsree (Ph +038 745 900). If I have any queries or complaints about the way I have been treated or to discuss my rights as a research subject, I can contact the Secretary, University Human Research Ethics Committee, Victoria University of Technology, PO Box 14428 MCMC, Melbourne, 8001 (ph +61=3=9688-4710)

Should I need to seek counselling, I can contact the Counselling Service of Burapha University, Chonburi, Thailand (ph 038393528)

……. ……

Signature of Research Subject Date

……. …….

Signature of Witness Date

…… ……

Signature of Researcher Date

Any queries about this study may be directed to Ms Akara Akaranithi, a student researcher (ph. 0-6626-1204, email: Akara.A@Chula.edu.th, her principal supervisor, Dr Ian M. Ling (ph. +61-3-9688-5024 email: i.ling@bigpond.com) or her co-supervisor, Dr. Chalong Tubsree (ph. 0-38745-900 ext.2009 email: Chalongtubsree@hotmail.com. If I have any queries or complaints about the way I have been treated or to discuss my rights as a research subject, I can contact the Secretary, University Human Research Ethics Committee, Victoria University of Technology, PO Box 14428 MCMC, Melbourne, 8001 (ph. +61-3-9688-4710).

APPENDIX C

Chulalongkorn University Language Institute

Phya Thai Road, Bangkok

Thailand

1 April, 2004

To Dean of Faculty of Architecture

My name is Akara Akaranithi. I am a candidate in the Doctor of Education program in partnership between Victoria University of Technology and Burapha University. I am conducting a research study entitled A Proactive Evaluation of a self-directed English Language Program for architecture students at Chulalongkorn University. The participants in this study are first-year students. The collection of data will be from 1 April to 31 August 2004 by means of questionnaire and /or interview.

The research study needs to be permitted and consented from the Dean of Faculty of Architecture. Please give any approval to gain access to data and to sue participants and premises in the Faculty.

Yours sincerely,

Akara Akaranithi

Researcher

APPENDIX D

Chulalongkorn University Language Institute

Phya Thai Road, Bangkok

Thailand

1 April, 2004

To Deputy Director of Academic Affairs

My name is Akara Akaranithi. I am a candidate in the Doctor of Education program in partnership between Victoria University of Technology and Burapha University. I am conducting a research study entitled A Proactive Evaluation of a self-directed English language program for architecture students at Chulalongkorn University.

The participants in this study are teachers in the English for Science and technology division. The collection of data will be undertaken from 1 April to 31 August 2004 by means of questionnaire and/or interview.

The research study needs to be permitted and consented from deputy Director of Academic Affairs. Please give approval to gain access to data and to use participants and premise in the Language Institute.

Yours sincerely,

Akara Akaranithi

Researcher

APPENDIX E

Chulalongkorn University Language Institute

Phya Thai Road, Bangkok

Thailand

1 April, 2004

To Head of English for Science and Technology division

My name is Akara Akaranithi. I am a candidate in the Doctor of Education program in partnership between Victoria University of Technology and Burapha University. I am conducting a research study entitled *A Proactive Evaluation of a self-directed English Language Program for architecture students at Chulalongkorn University*.

The participants in this study are the teaching staff in the English for Science and Technology Division. However, I am not at liberty to reveal his or her identity. The collection of data will be from 1 April to 31 August 2004 by means of questionnaire and/or interview.

The research study needs to be permitted and consented from the Head of English for Science and Technology Division. Please give approval to give questionnaire and/or interview the teaching staff in the division.

Yours sincerely,

Akara Akaranithi

Researcher

APPENDIX F

Chulalongkorn University Language Institute

Phya Thai Road, Bangkok

Thailand

1 April, 2004

To first-year students

My name is Akara Akaranithi. I am a candidate in the Doctor of Education program in partnership between Victoria university of Technology and Burapha University. I am conducting a research study entitled *A Proactive Evaluation of a self-directed English language Program for architecture students at Chulalongkorn University.* The participants in this study will be first-year students studying in the faculty of Architecture. The collection of data will be from 1 April to 31 August 2004 by means of questionnaire and/or interview. The questions to be asked will be about the way of self-directed learning and teaching. Your name will not be revealed to the teachers and any of the recorded comments will not be referred to you.

The research study needs to be permitted and consented from you as learners. Please give approval to give questionnaire and/or interview.

Yours sincerely,

Akara Akaranithi

Researcher

APPENDIX G

Chulalongkorn University Language Institute

Phya Thai Road, Bangkok

Thailand

1 April, 2004

To Teachers of English for Science and Technology division

My name is Akara Akaranithi. I am a candidate in the Doctor of Education program in partnership between Victoria University of Technology and Burapha University. I am conducting a research study entitled A Proactive Evaluation of a self-directed English Language Program for architecture students at Chulalongkorn University.

The participants in this study will be teachers of English for Science and Technology Division. The collection of data will be from 1 April to 31 August 2004 by means of questionnaires and/or interview. The questions to be asked will be about the preferred practice in teaching self-directed learning and teaching. Your name will not be revealed and any of the recorded comments will not be referred to you.

The research study needs to be permitted and consented from you as a teacher.

Yours sincerely,

Akara Akaranithi

Researcher

APPENDIX H

Questionnaires: Students & Staff

1 Opinions regarding English for Architecture Program (pre-test: 40 items, items 1-20 shown; items 21-40 as for post-test)

Listed below is a series of items that describes aspects of the English for Architecture Program.

Would you please indicate, by circling a number, how you judge your response to the aspect under consideration

Aspect	Measure of your response at the beginning of the English for Architecture Program.
1. Teachers should have the dominant role in the classroom.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
2. Teachers should have the responsibility for selecting the learning activities of students.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
3. Teachers should encourage students to develop their language skills outside the classroom	weak << >>strong 1 2 3 4 5 6 7 8 9 10
4. Teachers should use established texts for preparing materials for English for Architecture Program.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
5. Teachers should write more of their own materials for English for Architecture Program.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
6. Teachers should encourage students to use websites when practising their English	weak << >>strong 1 2 3 4 5 6 7 8 9 10
7. Teachers should teach each of the four language skills separately.	weak << >>strong 1 2 3 4 5 6 7 8 9 10

8. Teachers should use integrated language skills more when teaching.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
9. Teachers should encourage students to be more independent in their learning.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
10. Teachers should place more emphasis on their students as individuals.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
11. Materials should be based on published texts.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
12. Materials should focus on subject-specific matter; i.e., landscape, architecture, etc.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
13. Materials for the course should be written by the teachers of English for Architecture Program.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
14. Materials for the course should have an exclusive focus on English language skills.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
15. In each unit, there should be an assignment for students to work on independently.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
16. Students find it important to practice speaking skills.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
17. Students find it important to practice listening skills.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
18. Students find it important to practice reading skills.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
19. Students find it important to practice speaking skills.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
20. There should be more practice on grammar assigned by teachers.	weak << >>strong 1 2 3 4 5 6 7 8 9 10

2. Opinions regarding English for Architecture Program (post-test: 40 items, items 21-40 shown; items 1-20 as for pre-test)

Listed below is a series of items that describes aspects of the English for Architecture Program.

Would you please indicate, by circling a number, how you judge your response to the aspect under consideration

Aspect	Measure of your response at the end of the English for Architecture Program.
21. Students should be assisted, on a regular basis, to access web-sites that focus on grammar.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
22. Students find the existing materials for English for Architecture Program interesting.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
23. Students find the existing materials for English for Architecture Program too difficult.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
24. Students find the time for studying English for Architecture Program too limited.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
25. Students should be allowed to study on their own – with guidelines provided by teachers – for at least one hour per week.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
26. Students should be allowed to study on their own without guidelines provided by teachers.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
27. Students spend very little time using computers in this course.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
28. Students spend too much time playing games on computers during this course.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
29. Students spend too much time using computers for their architecture projects.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
30. Students prefer to be assessed in groups.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
31. Students should be assessed on a more individual basis.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
32. Students find the existing assessment scale to be satisfactory.	weak << >>strong 1 2 3 4 5 6 7 8 9 10

33. Students find oral presentation useful for their further study.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
34. Students prefer unstructured activities in the classroom.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
35. Students find it more effective to use self-access materials.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
36. Students understand the need for English in their further study.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
37. Students should be able to use English effectively in their future occupation.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
38. Students prefer more independent study in this course.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
39. Students find it useful to encounter more specialist architectural terms in this course.	weak << >>strong 1 2 3 4 5 6 7 8 9 10
40. Students really improve their English skills in this course.	weak << >>strong 1 2 3 4 5 6 7 8 9 10

APPENDIX I

Semi-structured Interviews (Students)

Directions:

The following interview is divided into five items. Complete each part by eliciting opinions from interviewees.

1. What do you think of the role of teachers at present? Do you want your teacher to control the classroom or let students study on their own? State your reasons.

2. What do you think of materials you are studying? Do you want to study the texts written by your teachers or use commercial books? State your reasons.

3. Which skills do you find the most important? State your reasons.

4. What kind of teaching practice do you prefer when studying? State your reasons.

5. What kind of assessment do you find it most suitable? State your reasons.

Semi-structured Interviews (Teachers)

Directions:

The following interview is divided into five items. Complete each part by eliciting opinions from interviewees.

1. What do you think of the role of teachers at present? Do you want to control the classroom or let students study on their own? State your reasons.

2. What do you think of materials you are teaching? Do you want to write your own materials or use commercial books? State your reasons.

3. Which skills do you find the most important one for your students? State your reasons.

4. What kind of teaching practice do you prefer when teaching? State your reasons.

5. What kind of assessment do you find it most suitable? State your reasons.