

DEVELOPING LEARNER AUTONOMY THROUGH THE USE OF A REVISED LEARNER TRAINING PROGRAMME (RLTP) IN KING MONGKUT'S UNIVERSITY OF TECHNOLOGY THONBURI

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A Thesis submitted for the degree of Doctor of Philosophy University of Edinburgh September 2000

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List of Abbreviations

ASSIST	Approaches and Study Skills Inventory for Students
EAP	English for Academic Purposes
ESL	English as a second language
FL	foreign language
KMITNB	King Mongkut's Institute of Technology North Bangkok
KMUTT	King Mongkut's University of Technology Thonburi
LAALE	Language Acquisition in an Autonomous Learning Environment
ME	Mechanical Engineering
OLTP	original learner training programme
RLTP	revised learner training programme
SAC	self-access centre
SALL	Self-Access Learning Laboratory
SDL	self-directed learning
SILL	Strategy Inventory for Language Learning
SL	second language
SLA	second language acquisition
SRA	Science Research Associates
TME	Tools and Materials Engineering

Acknowledgements

First of all I would like to thank the Thai government for sponsoring my study and the School of Liberal Arts, King Mongkut's University of Technology Thonburi for allowing me to have the opportunity to study for this PhD.

There are many people who I would like to show my gratitude as they assisted me to finish the thesis. I would like to show my deepest appreciation to Mr. David Carver, my supervisor who provided guidance and comments until the thesis was completed. My gratitude goes to Prof. Noel Entwistle, my co-supervisor, who gave valuable comments and references during the writing-up stage. I also would like to thank Dr. Sylvia Jackson, my ex-supervisor who helped shape the thesis until the data analysis was finished and Dr. Pat Mclaughlin, who read and commented on the first year report, which helped me to modify the research design.

My thesis could not have been finished without help on statistical analysis from Mr. Stephen Sharp, Ms. Velda McCune, Ajarn Sakdina Boonpiem and Mr. Piyachart Chokepipat. I thank them for their help and patience with me. During the data collection, Asst Prof. Wilaksana Srimavin helped me to observe my teaching and to collect the data when I came back to Britain. I am deeply appreciated for her time, assistance and encouragement. My gratitude also goes to Ajarn Wareesiri Singhasiri, who although busy with her PhD study, spared time to be an inter-coder and an evaluator of the data. She never failed to encourage me when I felt depressed during this long period of study. I would like to thank Ajarn Ganchong Kritprayoch for helping me collect data and Asst Prof. Richard Watson Todd who always gave interesting ideas and relevant references. Moreover, I appreciated the cooperation from other colleagues during the data collection stage.

There are two people who not only helped reading and giving comments on the thesis but they also gave moral support and took good care of me during my stay in Edinburgh. Without Mr. and Mrs. Dickinson, I don't think that I could have had a pleasant time staying in Edinburgh and success in my PhD study.

If this thesis is able to give an insight into the process of developing learner autonomy, it was because of the co-operation from the first year Tools and Materials Engineering and Mechanical Engineering students who participated in this research study. I had a good time teaching them. I would like to thank the first year Engineering students at King Mongkut's Institute of Technology North Bangkok for participating in piloting the Thai version of ASSIST and Ajarn Nanthawan Wimanrat for her offer and management of this pilot. I would also like to show gratitude to friends in Edinburgh who helped in the pilot stage of the research instruments by filling in the questionnaire, giving feedback and adding the strategies they used to handle English tasks.

I would like to thank the fellow students and staff at Research Base, Moray House Institute of Education who always lent their helping hands. Their suggestions and comments helped me think more deeply about my research study.

The final version of this thesis was completed with the help from Prof. John Cowan, the external examiner and Mr. Iain MacWilliam, the internal examiner. I am grateful for their constructive comments.

Finally, this thesis would not have been completed without all the support from my family and friends both in Thailand and in the United Kingdom. The process of PhD study was long and painful but all of them helped me make it through this difficult time.

Abstract

This thesis reports the case study research on the effectiveness of a revised version of the original learner training programme which had been integrated into a compulsory English course at King Mongut's University of Technology Thonburi. The Revised Learner Training Programme (RLTP) aimed at providing an environment which encouraged learner autonomy expressed in such features as freedom in learning, an opportunity to make decisions in learning as well as hands-on experience in independent learning so that the students would develop positive attitudes towards being autonomous in learning. It also emphasised the use of metacognitive strategies which helped the students to be self-directed, knowing how to plan, monitor and evaluate their learning performance.

The data indicated that the students perceived freedom in learning resulting from being allowed to make decisions in learning, working in groups, and discussing in class. This experience increased the students' motivation to learn English and encouraged them to adopt a deep approach to learning which suggested that they were involved in the learning process actively and interested in the course content. The data indicated an increase in learner autonomy manifested in students' improvement of their attitudes to independent learning mode and confidence to learn by themselves, which might encourage them to undertake the self-study in the self-access centre voluntarily. The data also indicated the effect of the change in relationship between the teacher and the students which made the students feel closer to the teacher. The results from the training on how to use metacognitive strategies indicated that the students used metacognitive strategies more often after the RLTP and they were aware of the usefulness of metacognitive strategies, especially *planning*. The data suggested factors that might influence the effectiveness of the RLTP, e.g. learning environment and hands-on experience.

The implications of the research focus on the development of learner autonomy creating a closer teacher/student relationship which seemed to be teacher-dependent. Nevertheless, the dependence came from the reassurance the students needed while moving into a new approach. The implications also raised the issue of whether learner-autonomy is universal or a cultural construct.

Chapter 1 Introduction

This brief introductory chapter gives some details of the background of the context where the research study was conducted, developments that were involved in the research study, justification for the research study and the chapter structure. It outlines the educational system in Thailand in regard to English language teaching and learning. It also outlines the context of study of the place of English at King Mongut's University of Technology Thonburi (KMUTT), the site of the case study, the type of students at KMUTT, the movement for promoting autonomy at KMUTT and how the research study arose from that context.

1.1. Context

This section covers information about how English language learning has been recognised in Thai educational system and in the syllabus of King Mongkut's University of Technology Thonburi (KMUTT) which was the setting of this research study. The description covers the importance of the National University Entrance Examination where English is one of the requisite subjects; this helps to explain how English is regarded by Thai students. It also gives the background to how the concept of learner autonomy has been accepted and practised at KMUTT.

1.1.1. The Place of English in Thailand

The formal educational level in Thailand is separated into three levels: primary level (P.1-P.6), secondary level (M.1-M.6) and tertiary level (normally 4 years except for those who study Medicine, Dentistry and Veterinary; they study 6 years and those studying Architecture study 5 years) (Department of Curriculum and Instruction Development, 1996). English teaching has long been established in the Thai educational system where it is taught as a foreign language. Even though the present curriculum at secondary level does not require English as a compulsory course, students still take

English courses in order to pursue higher education. Although English is taught as a foreign language, it is considered an important tool for jobs and education abroad. It is also essential for the students to be good at English because it is one of the subjects that they have to take in the National University Entrance Examination. At present, demands for the study of modern foreign languages have been increasing since the economic boom of the 1980's. This has created a demand for individuals who not only are qualified in their chosen area of professional expertise but also can communicate in English with colleagues or customers orally and in writing with a reasonable degree of fluency. Thus, English has become more than just a tool to gain access to modern technology, it is now regarded as the key to professional advancement (Wongsothorn et al., 1996: 94). There is evidence from a month-long survey of the classified ads in three Thai newspapers, Ban Muang, The Bangkok Post and The Nation Review that as many as 89.5% of the jobs advertised required English language skills. The respondents in the study said that the English language was a resource they found crucial and upon which they relied heavily during their university studies (Thananart, 1996: 69). The media also plays a role in encouraging the use of English in homes across the country. The popularity of CNN News and the IBC entertainment and information channels, both in the mother tongue and in English, has proven that 'globalisation' is rapidly taking place in Thailand (Wongsothorn et al., 1996: 97).

1.1.2. English at School Level

According to the 1992 Thai National Scheme of Education, foreign languages are optional from P.5 through the upper secondary level (Wongsothorn et al., 1996: 95). Before 1996, English was generally taught from P.3 to M.6 in state schools. However, some schools especially private schools offer English from P.1. Recently, there was a change in the English curriculum: from 1996 English has been compulsory from P.1 onwards. In the state schools, the allocation of time to study English is generally the same nationwide. At primary level, five 20-minute periods of English study/week are stipulated in the curriculum. At the lower secondary level (M.1-M.3), four 50-minute periods are offered per week. The study of English is done more intensively when the

students study at upper secondary level (M.4-M.6). The students have to study eight 50minute periods per week. The ratio of English time and total instructional time are 1:15 in elementary school, 2:15 in lower secondary school and 4:15 in upper secondary school (Wongsothorn et al., 1996: 96-97). Having talked to the MA students of the department who teach at secondary school level, the author realised that although the communicative approach has been emphasised as the main teaching approach to encourage the students to use the four skills of listening, speaking, reading, and writing, to communicate, teachers still emphasise reading and grammar because these two aspects are focused on in the National University Entrance Examination. However, English teaching varies from school to school. The schools in Bangkok or the other big cities have more qualified teachers. Students at secondary level study English in order to meet the requirement to pass the National University Entrance Examination. Therefore, they have a strong instrumental motivation to study this subject; English is the subject that most of the students feel it necessary to have tutorial classes in, as well as in the other main subjects such as Mathematics, Physics, and Chemistry.

1.1.3. National University Entrance Examination

Basically, the students in upper secondary school (M.4-M.6) are separated into two fields: Science and Humanities. To get a place in the universities run by the government is considered prestigious and entry is very competitive. Private universities are easier to enter into. The field of study and the university a student graduates from determines his/her future prospects. The National University Entrance Examination is offered once a year and every year only 1 out of 15 students gets a place to study in a government university. To sit the exam, the students list four choices where they have to state the faculty and the university they want to study at, placed in rank order. Objective tests are used in all the compulsory subjects in the examination. Since the National University Entrance Examination is important for secondary school students, it affects the way English is taught in secondary school. From an informal talk with the students while teaching LNG 101, the author found that the teachers in some schools spend most of their time on reading and grammar which are the two main elements found in the examination. It can be said that the format of the examination determines the teaching in the classroom. The assessment process is done by using objective tests so that students are familiar with this test-taking procedure.

1.1.4. English at King Mongkut's University of Technology Thonburi (KMUTT)

King Mongkut's University of Technology Thonburi (KMUTT) is a state university which provides education both at undergraduate and post-graduate levels. At KMUTT, the Department of Languages in the School of Liberal Arts is responsible for offering English courses to the students. The importance of English and the extent of English studied at KMUTT differs from faculty to faculty.

- It is a compulsory subject for undergraduate students in the Engineering and Science Faculties. They have to pass English in order to graduate. The requirement is six, eight or twelve credits depending upon the curriculum of their departments. According to the curriculum, all the first year engineering and science students have to take LNG 101 General English for Science and Technology which is a four-credit course in the first semester. In the second semester, they can choose one or two out of three courses; namely, Basic Study Skills, Communicative Writing in EST and Basic Reading in EST. Apart from completing this requirement, the students regard English as an instrument to help them understand English texts and get a good job in the future as revealed from a pilot interview study with the first year students (see 4.2.3.1.).
- 2. English is a medium of instruction for undergraduate students studying in the international programme in the School of Architecture.
- 3. Students who study in the School of Information Technology have to study English intensively every semester. This programme is at an initial stage before it becomes a real international programme in the future when it is hoped that undergraduates from other countries will come to this school and study through the medium of English.

4. English is a requirement for the entry to post graduate awards. The post graduate students have to take an English proficiency examination provided by the School of Liberal Arts. Those who pass the examination will take one English course but those who do not pass the examination have to take two English courses provided by the School of Liberal Arts.

It is obvious that English is regarded as important at KMUTT; it is not only a compulsory subject but also the medium of instruction in some faculties. Therefore, the School of Liberal Arts has tried to improve the teaching and learning of English. Fostering learner autonomy in English language classes has been used in order to help the students to be effective language learners.

1.1.5. The Promotion of Learner Autonomy at KMUTT

The report of the School of Liberal Arts shows the development of learner autonomy over the past eleven years (internal memorandum). The teaching staff have been exposed to the concept of learner autonomy through seminars and workshops since 1988. Some aspects of learner training to help students become more autonomous have been integrated into every English course (see 3.2.1., 4.2.3.3.1.). The self-access centre, the facility that provides equipment and materials prepared for students to practise on and get feedback from working independently was set up to support this movement. In KMUTT, it is called the Self-Access Learning Laboratory (SALL). The SALL is recognised by other educational institutions in Thailand as a resource that practises self-access learning as the mode of learning; staff from other educational institutions pay visits to the SALL all year round in order to learn about how to set it up and how to operate it. The work of the SALL is also well known throughout other South East Asian countries because of a regional conference held in 1994 and an international conference held in 1996, both organised by the School of Liberal Arts. Seminar participants requested to see the SALL and some asked for more visits with their colleagues.

The context at KMUTT obviously allows the investigation of development of learner autonomy in terms of the available resources and the support from the staff members of the School of Liberal Arts.

1.2. Development of the Research Study

The Department of Languages has tried to promote learner autonomy in LNG 101 since 1989 when the staff were exposed to the idea of learner autonomy introduced through seminars and workshops by Mr. Leslie Dickinson. The application of the concept which was regarded as supporting communicative approaches in teaching English was seen from the establishment of the SALL and the fostering of learner autonomy by integrating learner training into every English course including LNG 101, which was the course where this research study was conducted.

Learner training is the process that helps the students to develop positive attitudes to learner autonomy and skills that enable them to assume responsibility for their own learning (Holec, 1981: 22; Dickinson, 1987: 125-126). However, there were aspects in the learner training programme that need to be developed so that the learner training process would be more effective (see 3.2.2.). From experience of teaching LNG 101, the author found that the students had not been sufficiently trained to work independently in a systematic way. There were many aspects of the learner training programme that needed step by step training and also the purpose of training had to be made more explicit to the students. Although choices were provided, this was only done at the last stage of the course. The ordinary teaching and learning process did not give them enough choices or encourage decision making. Autonomous learners are also independent learners. At KMUTT, the SALL had been used to promote independent learning by integrating its use with LNG 101. However, the students have not used it as expected by the teachers as revealed from the record of users of the SALL; providing a place for independent learning did not mean that learner autonomy would develop. It would appear that students need support from the teacher to lead them through independent learning. In addition, the research by Watson Todd (1996) which was

conducted with teachers who taught LNG 101 also provided evidence on the weaknesses of the learner training which had been adopted (see 3.2.2.) in relation to teacher behaviour which seemed to oppose the development of learner autonomy.

1.3. Justification for the Research Study

This research study aimed at working to solve some of the problems that arose from the development of learner autonomy in LNG 101 through the use of learner training and investigating the contributory factors that might affect the students' development of learner autonomy. The author revised the original learner training by modifying it and adding new aspects which might be useful for the development of learner autonomy. The revised learner training programme (RLTP) had to keep many aspects of the original learner training programme (OLTP) especially those related to requirements of LNG 101 because the students the author conducted the study with had to go through the same evaluation system as the other students who took the same course. Thus, the RLTP was, in practice, an improvement of the OLTP in order to make the development of learner autonomy more effective.

In addition, the RLTP aimed to help the first year students adjust themselves to the new learning environment which required that they look for knowledge outside the classroom. The students needed to manage their time efficiently in order to cope with both the demands of academic work and extra-curricular activities. To preserve the traditions of the university and promote bonding and co-operation among students, all first year students were asked to participate in the activities arranged by their seniors. They had to stay after school to participate in such activities until 8.00 p.m. for the whole first month of the semester. As a result, the students complained that they were tired and had no time to study. The RLTP aimed at helping the students to set goals in learning and develop a system in learning by using planning, monitoring and evaluating to handle their tasks. The students had to think about time management when setting up learning goals and planning their learning. This process would help them to deal with the problem of adjusting themselves to the university life and the management of their time overall.

Another reason why the author chose to conduct the research study when the students took their first English course was that she thought that developing learner autonomy in the first semester while the students had to adjust themselves to the university environment would help them to develop the right attitudes and the ability to be self-directed learners. The students would learn to analyse their learning objectives, monitor their performance, and evaluate their learning. In other words, they would have the opportunity to reflect critically on what they were learning and how well they were doing. To be self-directed learners, the learners would be active and independent in the learning process. Not only is self-directedness necessary for English language learning at KMUTT, it is also useful for university learning and life-long learning.

Helping the students to be self-directed learners, which is the objective of developing learner autonomy, was regarded as a means of helping the students to meet their individual needs arising from their different background experiences in the area of learning. Since university study is the level of study where they choose their future career, the students have choices even in their field of study to focus on the area in which they want to specialise in the future. It is important for them to analyse their needs, set goals and work for these rather than waiting for the teacher to help them. A student's university experience is regarded as a period of preparation for work in the real world. Therefore, the more they work in an independent manner, analysing needs, selecting targets, the better prepared they will be for life after university.

Being autonomous and reflective is important for engineering graduates especially in this Information Age when knowledge becomes outdated rapidly. Therefore, they should be trained to develop their ability to apply information, to analyse situations and see potential for development, to be creative in suggesting ways which bring about development, and to evaluate their activities and their proposals which deal with putting knowledge into practice (Cowan, 1998: 29).

1.4. Context of the Research Study

The research study was conducted in the first semester of 1997 when the students participating in this study took General English for Science and Technology (LNG 101), a compulsory English course for engineering and science students. In LNG 101, the students were required to have five contact hours a week: four hours in class and one hour in the listening laboratory. The materials used in this course were six units taken from 'Interface' (Hutchinson and Waters, 1984) (see the materials used in LNG 101 in Appendix A). The content of the material was semi-technical and aimed at developing the students' English proficiency in the four skill areas; listening, speaking, reading and writing. Each unit of Interface consists of four elements: input, content focus, language focus and task. Input is any piece of communication data such as a text, a dialogue which provide new language items and a correct model of language use so that the learners are able to use their existing knowledge and information processing skills to understand it. Content focus aims at using non-linguistic content to enable the learners to communicate meaningfully in the classroom. Language focus provides the knowledge of language which the students can practise how it work so that they are able to use the language in the task. Task is the main focus of the unit; it is a communication task where the learners can use the content and the knowledge they have learned throughout the unit to complete it (Hutchinson and Waters, 1989: 108-109). Although these students have studied English for at least five years before coming to university, in previous English lessons they have concentrated more on grammar and reading, which was the main focus of the National University Entrance Examination. When they study in LNG 101 which emphasises writing and speaking, the students have to adjust to the new learning environment.

The first year engineering students who take LNG 101 are 18-20 years of age. However, they seem to be teenagers more than young adults because in Thai society, children are not expected to be independent from their family until they finish education and have a job to earn their living. With regard to being independent in the learning process, these students have just finished secondary school where the educational system is more restricted than the university studies; therefore, they are not used to having choices in learning. They tend to look up to the teacher for guidance. However, these students are regarded as good and confident learners in their field of study because passing the National University Entrance Examination to study in the Faculty of Engineering in a state university requires them to know how to learn. They have positive attitudes towards learning and are open to a new teaching/learning system in their university studies.

1.5. Chapter Structure

Chapter 2 provides a review of the relevant literature. Since the study was conducted in an English class in the university, the author reviewed the literature of how developing learner autonomy would contribute to effective learning both in higher education and in English language learning. Effective learning is defined in terms of deep and surface approaches to learning. The content of the chapter covers definitions and terminology used in the area of learner autonomy, discusses the relationship of developing learner autonomy to effective learning, shows how to develop learner autonomy which is discussed in relation to learner training, and the roles of the teacher. How to develop learner autonomy is discussed with reference to English language learning because those concepts were central to this research study. Relevant research and practice of providing learner autonomy in various educational institutions are also discussed because they provided a basis for this research study.

Chapter 3 describes how the author applied the theory and adopted some elements of the practice of providing learner autonomy in language learning in other educational institutions to revise the learner training programme which was used as a tool to develop learner autonomy. The weaknesses of the OLTP are analysed and the details of activities and comparison between the OLTP and the RLTP are presented. Chapter 4 describes the research design. It covers the literature of case study which was the approach for this study, research methodology, and methods of data analysis. The discussion of the research methodology covers the research stages, the research instruments employed in data collection and expansion of the research design. The description of each research instrument involves a review of the relevant literature, how it was used, how each research instrument was devised and problems arising from using it.

Chapter 5 reports the results of the research by presenting the data and its implications in relation to the literature discussed in Chapter 2. The data which was obtained from the fieldwork and the follow-up study was presented according to the areas of the change of the students' attitudes and/or behaviour and the contributory factors that might affect the students' self-directedness.

Chapter 6 discusses the conclusions of the study, implications of the main points arising from this study, limitations of the study, direction for further research, recommendations for development in teaching and learning and for development of learner autonomy at KMUTT, the place where this research study was conducted.

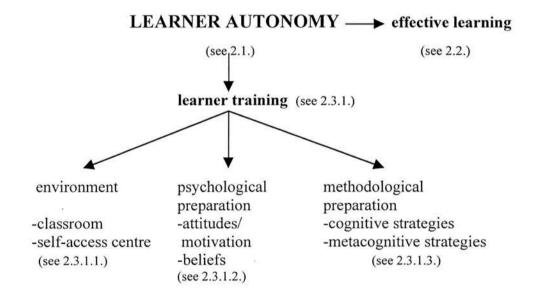
Chapter 2

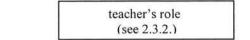
Literature Review

Introduction

The concept of learner autonomy is broad and involves many aspects of education. This chapter is a selective review of some of the literature on learner autonomy, its benefits in higher education and in language teaching/learning and how to develop learner autonomy. The discussion on how to develop learner autonomy will focus on a language learning context as it is central in developing this research study. The concept of learner autonomy to be reviewed in this chapter is summarised in the following diagram.

Diagram 2.1. the Concept of Learner Autonomy





The main focus of this research study was to investigate the relationship between *learner autonomy* and *learning effectiveness* and the underlying assumption was that increasing learner autonomy of a group of students would result in an increase in the effectiveness of their learning. The investigation of this assumption through a case study of a group of students will be described in Chapters 5 and 6. General statements of this nature raise numerous problems of definition and it is part of the purpose of this literature review to investigate how these terms have been used in both general education literature and language teaching literature and to use this literature to assist in the definition of these terms for the purpose of this research (see 2.1.).

Since the assumption of this research study was that promoting learner autonomy will result in effective learning, the review of the literature will explore the concept of *effective learning* by focusing on students' approach to learning. There was evidence in the literature that the students adopting a deep approach to learning and those being able to self-regulate their learning through the use of metacognition do better in their learning (Pintrich and Garcia, 1994: 119-120). The deep approach indicates that the students are active and intrinsically motivated in learning by trying to understand what they are learning, linking the ideas learned to their previous knowledge and experience. Adopting the deep approach to learning is also related to metacognitive awareness which helps the students to self-regulate their learning (see 2.2.1.).

Although adopting the deep approach to learning will vary across subject areas, adopting the deep approach to learning English is regarded as desirable because it involves the students' constructing their own meaning through receptive skills, i.e. listening and reading where the students have to link what they listen to or read with their previous knowledge in order to understand the text. In productive skills, i.e. speaking and writing, the students have to understand the rules and the process of producing the language requires them to check their understanding of the rules and convey the meaning which they construct without help from the teacher. Being effective language learners also requires the students to be independent and to use metacognition to evaluate the task they engage in (see 2.2.2. and 2.3.1.3.2.).

Since the context of this research study was developing learner autonomy in an English language class in a university, the relationship between learner autonomy and adopting the deep approach to learning will be discussed with reference to learning in higher education. The focus of the discussion on effective learning will be on fostering learner autonomy in language learning. Relevant research is presented to support the discussion.

In the literature of learner autonomy in language learning, learner training has been used as a means to promote learner autonomy. This research study also adopted the idea of learner training to develop learner autonomy. Therefore, the review of the literature will give the background of the theory of conducting learner training and how learner training has been conducted. The discussion involves three main elements of learner training: providing an environment to promote learner autonomy, psychological preparation and methodological preparation. Providing an environment to promote learner autonomy can be done through providing the classroom environment which promotes self-determination and through setting up the self-access centre (SAC) so that the students are able to undertake independent learning by using the self-access materials. Psychological preparation deals with students' attitudes and motivation as well as their beliefs about language learning. Methodological preparation covers the ideas of helping the students to be aware of cognitive strategies and use metacognitive strategies in their learning (see 2.3.1.).

The discussion of learner training also covers the roles of the teacher as the teacher is regarded as important in delivering learner training, i.e. s/he has to provide a classroom environment that promotes learner autonomy, help the students to have positive attitudes towards learner autonomy and teach and/or guide the students to employ cognitive and metacognitive strategies. The discussion of the teacher involves

roles and desirable qualities of the teacher and how to prepare the teacher to accept the new roles and how to conduct the class. Throughout the discussion, selective examples of practice in providing the three main elements of learner training in different educational contexts are presented as some of the ideas in this research study were adopted from that practice.

The review of the literature in this chapter provides a basis for this research study both in revising the learner training programme (see Chapter 3) and in discussing the implications of the results of the research (see Chapter 5). The review of the literature on the research design will be presented in Chapter 4.

2.1. Definitions and Terminology of Learner Autonomy

In this research study, **learner autonomy** is defined as students' **willingness**, **confidence** and **capability to take responsibility for their own learning especially in an independent learning mode**. This derives from the definitions and descriptions of learner autonomy in the literature reviewed below.

There are many terms used to refer to learner autonomy both in general education and in language learning. The purposes of promoting learner autonomy also vary depending on different educational contexts. This section first will present the concept of learner autonomy by discussing various definitions used in the literature.

A fundamental purpose of education is to develop in individuals the ability to make their own decisions about what they think and do, i.e. to develop individual autonomy (Boud, 1988: 18). Higher education has many purposes. Perhaps the most obvious is to enable learning of the chosen subjects. However, higher education also aims at developing individual autonomy, mind and learning for life (Tait and Knight, 1996: 5). The concept of the individual as a person of wisdom and as a lifelong learner is reflected by current thinking about the process of learning in higher education. For instance, Biggs (1993: 75) thinks that learning is relational in that individuals have to

relate new information, concepts or processes to their existing knowledge and understanding. Learning thus emphasises the development of the individual. From this concept, **flexible learning** arises. This term is used to refer to a learning mode that promotes learner autonomy. Flexible learning is a movement away from formal, whole-class didactic teaching towards individual self-management of learning. Flexible learning involves provision of structured resource materials, opportunities for the negotiation of tasks, self-and peer-assessment, and collaborative group work, often on real-life projects (Entwistle, 1996: 97).

• Autonomy in Language Learning

With regard to language learning, the concept of learner autonomy in the language curriculum is underpinned by progressivism, an educational ideology which attempts to promote the learner's development as an individual with intellectual and emotional needs and as a social being (Clark, 1987: 49). The learner is seen as a whole person. Progressivism introduces a learner-centred approach to education. 'Growth' through experience is the key concept. Education is regarded as a means to provide learners with learning experiences through which they can learn by their own efforts, not a process for the transmission of a set of closed truth. Teachers are seen as creators of an environment where learners learn and learn how to learn; they provide guidance and facilitate the learning process. Learners are seen as active participants who shape their own learning. Learning is not limited only to the knowledge being passed from the teacher to the learner.

Progressivism is concerned with the following aspects of education

- individual growth from within through interaction with a favourable environment.
- learning through experience
- a speculative view of knowledge
- natural learning processes and stages of development
- sensitivity to the interests, rhythms, and styles of learning of individual learners
- the learner as a whole person
- the social nature of the learner and the development of healthy relationships with others in the classroom community
- the promotion of learner responsibility and of learning how to learn (Clark, 1987: 51)

The influence of progressivism can be seen in definitions of learner autonomy in language learning which focus on individual growth, learner responsibility and learning how to learn.

An early movement in developing learner autonomy in language learning was the Council of Europe's Modern Languages project which was established in 1971. Autonomy was an important element in the overall framework of the Council's work because it accorded with the Communicative Approach, which focuses on pragmatics and a social vision of the language. A series of projects implementing and investigating autonomy and self-direction were conducted at the Centre de Recherches et d'Applications Pedagogiques en Langues (CRAPEL), Universite Nancy II under Henri Holec (Gremmo and Riley, 1995: 153). Holec (1981:3) defines autonomy as 'the ability to take charge of one's own learning' i.e. being able to determine the objectives, define the contents and progressions, select methods and techniques to be used, monitor and evaluate what has been learned. He views autonomy as a set of desirable qualities that students should possess in order to be active learners by getting involved in the whole process of learning from setting the learning objectives to evaluation. For Holec, learner autonomy primarily concerns the learner's behaviour or his ability to get involved in the learning process more actively.

Dickinson (1993: 330) took up Holec's definition of autonomy but expanded his definition by emphasising one's attitudes towards learning in addition to having an ability to take charge of one's learning. To him, learner autonomy is an attitude towards learning in which the learner is prepared to take, or does take, responsibility for his own learning. To take responsibility for one's own learning essentially concerns decision-making about one's own learning. He offers the following criteria to judge the achievement of autonomy: being aware of the teacher's objectives, being able to select and use appropriate learning strategies, and evaluate whether these strategies work for them or not. Learners also have to be able to evaluate their own learning. Dickinson's definition of learner autonomy indicates that in order to be able to take responsibility for

his own learning, the learner needs to have a positive attitude towards this matter. Wenden (1991: 163) agrees with Dickinson's idea as she defines an autonomous learner as

'one who has acquired the strategies and knowledge to take some (if not yet all) responsibility for her language learning and is willing and self-confident enough to do so.'

This definition implies Wenden's taking into account both ability and attitudes as components of learner autonomy. Little, on the other hand, looks at learner autonomy a little differently from Holec, Dickinson and Wenden. Although he mentions the capacity of a person to make decisions in learning, what he also concerned about is the capacity for detachment, critical reflection and independent action (Little, 1991: 4).

Although there is a variation in defining learner autonomy in language learning, it can be concluded that the definition of learner autonomy is centred on the **capacity** of the learners to take responsibility for their own learning as well as the **attitudes** of the learners towards learning. Having the capacity for and positive attitudes towards taking responsibility for one's own learning means one needs to have ability and willingness to take charge of one's own learning. In other words, the learner needs to have knowledge and skills as well as to be motivated and confident to act autonomously.

Terminology Related to Learner Autonomy

In addition to *flexible learning*, *self-direction* or *self-directed learning*, *independent learning*, and *self-instructional learning* are terms that can be found in the literature of learner autonomy. Sometimes they are used to mean learner autonomy and there is an overlap in the definitions of these terms. For instance, Wilcox (1996: 165) defines **self-directed learning** as 'a process of learning in which learners function autonomously, taking responsibility for planning, initiating, and evaluating their own learning efforts.' Holec (1981: 4) states that self-directed learning implies an autonomous learner because the learner accepts responsibility for the learning. Different degrees of self-direction in learning may result from different degrees of autonomy or

from different degrees of the exercise of autonomy. He sees autonomy as a capacity and self-directed learning as a way in which learning is carried out.

Dickinson, on the other hand, views self-direction as an attitude towards a learning task. The learners accept responsibility for the decisions concerning their learning but they do not necessarily implement the decisions they make (Dickinson 1987: 11). Carver and Dickinson (1982: 15) discuss four areas of responsibility that the self-directed learners should assume responsibility for in language learning:

- being aware of and accepting responsibility for the aims and objectives of the course
- monitoring the development of the course and its relevance to their own learning objectives
- assessing themselves to see whether they achieve a learning task and having a reasonable idea of their level of proficiency and
- being active in learning by seeking out every opportunity to understand, practice and learn.

Self-directed learning is discussed extensively in relation to adult learning as it is regarded as a learning mode suitable for adults because it emphasises the learner and his interests for learning (Knowles, 1975, Brookfield, 1985). According to Long (1989: 2-7), self-directed learning has three conceptual dimensions: a sociological dimension, a pedagogical dimension and a psychological dimension. With reference to the sociological dimension, Long argues that self-directed learning involves learning in isolation. This type of independent learner is regarded as an autonomous learner in that his parameters and learning activities are personally established. The pedagogical dimension views self-directed learning as a degree of freedom to which the learner is given to set learning and to decide how and what kind of evaluation of the learning will take place. The psychological dimension concerns the degree to which the learner maintains active control of the learning or cognitive process. If the learner is not

psychologically self-directing, it is unlikely he will engage in autonomous learning activity and to be a successful learner in the solitary learning mode.

Self-direction in learning indicates the ability of learners to be active and responsible in the learning process and so is a prerequisite of autonomy; to take some of the control of their learning which is normally held by the teacher. Self-directed learning is regarded as the learning process that promotes desirable learning behaviour. It can be inferred from the definitions that the process of encouraging the learners to become self-directed in their learning requires their psychological readiness. Therefore, the learners should be helped behaviourally and psychologically in order to undertake the self-directed learning mode.

Independent learning describes the learning situations where the learners have to take charge of their own learning by making decisions about what and how to learn as there is no teacher around to help them. Macaro (1997: 67) thinks that this learning mode derives from a need to develop long-term learner strategies which will be of use in current or future learning situations where a teacher may not be available. It can be said that learner autonomy in this respect is related to the learning environment in which the learners are.

According to Dickinson (1987: 11) **self-instruction** is the term generally referring to a situation where learners work without the direct control of the teacher whereas **autonomy** is the situation where learners are totally responsible for all the decisions concerning their learning and the implementation of the decisions. Therefore, self-instruction is similar to independent learning as defined by some authors whereas Dickinson's definition of autonomy is the same as self-directed learning.

The above definitions of learner autonomy exemplify the concept which Boud (1988: 20) defines as an approach to educational practice, i.e. learner autonomy is a way

of conducting courses which emphasises learner independence and taking responsibility for decision-making.

• Summary of Definitions and Terminology of Learner Autonomy

It can be summarised from the definitions of the terminology discussed above that the concepts of learner autonomy focus on the notion of *students working independently from the teacher* and students *taking responsibility for their own learning through making decisions in the learning process*. Since this research study was conducted in a formal educational setting where there was a restriction from a predetermined syllabus and the requirements of the institution, **learner autonomy** also centred on this notion as it **was indicated by the students' willingness, confidence and capability to take responsibility for their own learning especially in an independent learning mode.**

2.2. Relationship of Learner Autonomy and Effective Learning

This section discusses why learner autonomy has been fostered in education, both in higher education and in language learning. The discussion focuses on the relationship between learner autonomy and effective learning. In this research study, the author investigated the students' approach to learning to indicate whether they were effective learners when they were exposed to the learning environment that promoted freedom in learning. The concept of approach to learning, relevant research and factors affecting students' approach to learning are presented in 2.2.1. The relationship of learner autonomy and effective language learners is described by presenting opinions from different authors and relevant research related to the benefits of promoting learner autonomy in language learning.

2.2.1. The Benefits of Developing Learner Autonomy in Higher Education

The concept of deep and surface approaches to learning came from the studies of Marton and Saljo which investigated how students tackled academic articles (Marton and Saljo, 1976 on going). They identified differences between students' intentions while they tackled the task of reading academic articles and texts and showed how these contrasting intentions led to different learning processes and outcomes. Students adopting a **deep approach** intended to understand the meaning of the article, questioned the author's arguments and related them to both previous knowledge and personal experience. The students who adopted a **surface approach** intended to memorise the important facts. Their research also indicated that content and context affected a student's approach to learning. The concept of deep and surface approaches to learning are applicable to language learning and useful in explaining effective learning. This is discussed in 2.2.2.

From the student learning research which originated in Sweden from Marton and Saljo's work on surface and deep approaches to learning, there have been ongoing studies in Britain by Entwistle and Ramsden (1983) and in Australia by Biggs (1976) which go in the same direction. The conceptual frameworks of the studies by Entwistle and Ramsden and by Biggs are different from the Swedish group in that they derived largely from individual difference psychology and cognitive psychology with a common focus on the learning context; therefore, the results of the studies can draw implications for teaching (Biggs, 1999: 12). Tools used to investigate the relationship between study methods, motivation and personality were developed: the **Approaches to Studying Inventory (ASI)** (Entwistle et al., 1979; Entwistle and Ramsden, 1983) and the **Study Processes Questionnaire (SPQ)** (Biggs, 1976). Responses to these tools also indicate the quality of the teaching environment because students' preferences tend to change when they are faced with a particular kind of teaching environment; they adapt to expected requirements (Biggs, 1999: 17).

Entwistle (2000: 173) views an '**approach to learning**' as a complex construct which incorporates consistency and variability of behavioural traits. It can be described as an individual difference, with a relatively low level of consistency, being affected by both the context and the content of the task set. Biggs (1999: 17) thinks that the 'approach' includes learning style and the effect of a learning context the students are encountering. Students' approach to learning is the interaction between the personal and the contextual factors; these two factors apply but which predominates depends on particular situations. Ramsden (1979) added **strategic** approach in addition to deep approach and surface approach as he found that not only context and content, assessment procedures also influenced students' approach to learning. The features of approaches to learning and studying are outlined in the following table.

Table 2.1. Defining Features of Approaches to Learning and Studying

Deep Approach Intention - to understand ideas for yourself	Seeking meaning leading to	
Relating ideas to previous knowledge and experience Looking for patterns and underlying principles		
Checking evidence and relating it to conclusions Examining logic and argument cautiously and critically		
Becoming actively interested in the course c	ontent	
Surface Approach Intention - to cope with course requirements	Routine reproducing	
Studying without reflecting on either purpose or strategy Treating the course as unrelated bits of knowledge Memorising facts and procedures routinely		
Finding difficulty in making sense of new id Feeling undue pressure and worry about wor		
Strategic Approach Intention – to achieve the highest possible g	Reflective organising grades <i>leading to</i>	
Putting consistent effort into studying Finding the right conditions and materials for Managing time and effort effectively	or studying	
Being alert to assessment requirements and criteria Gearing work to the perceived preferences of academic staff		

(Entwistle, 2000: 174)

The above features focus on the link between intention and process, i.e. how an intention to achieve the goals affects the learners' learning and study process. Adopting the deep approach to learning is regarded as desirable because it indicates that the students are studying effectively. Generally, students studying in the university are expected to go beyond recall of information as they are entering into the discipline of a profession. Therefore, using the deep approach to learning indicates the students' intention to understand what they are studying by themselves and their interest in the course content. Entwistle (2000: 175) remarks that the critical, imaginative thinking which is the fundamental aspect of the deep approach seems to rule out rote memorisation. However, in many areas of study especially in languages and some sciences, memorisation of words or terms is an essential part of understanding (Entwistle, 2000: 175).

It can be said that the specific learning processes required to reach a deep understanding differ between disciplines. Memorisation does not always indicate a surface approach. Biggs (1999: 14) thinks that memorisation becomes a surface approach when it is used instead of understanding because in many situations, recalling word for word is appropriate such as learning lines for a play, acquiring vocabulary, or learning formulae. According to Entwistle (1998: 88), the deep approach sometimes requires the use of memorisation, such as memorising details or terms, in order to seek understanding. The routine reproduction of material presented by the institution is regarded as the main characteristic of the surface approach. The study by Ramsden and Entwistle on the effect of academic department on students' approach to studying which was conducted with 2208 students from 66 academic departments in six disciplines; namely, English, History, Economics, Psychology, Physics and Engineering indicated that good teaching, greater freedom in learning and an avoidance of overloading were likely to help students to adopt the deep approach to learning, and improve attitudes towards and quality of what was learned. Although individual differences such as students' prior educational experience, levels of ability, motivation and study skills played a role in the students' approaches to learning, the results suggested that the teaching, the assessment and the course organisation helped shape the students' approaches to learning (Ramsden and Entwistle, 1981). Promoting learner autonomy thus played a part in encouraging the students to adopt the deep approach to learning.

Higgs (1988: 48-50) explored the relationship between learner autonomy and/or self-directed learning and approaches to learning and concluded that an accomplished autonomous learner had the capabilities for learning in an independent manner and was also able to recognise the advantages of choosing alternative modes of learning (i.e. deep or surface approach) where these were considered to be more appropriate to the learning goals. In addition, an autonomous learner who successfully solved a learning problem or completed a learning task using a deep approach to learning gained understanding of the problem or task investigated. However, if there was some limitation within the learning environment or if the learner lacked the ability to use deep learning strategies, s/he might complete the task using a surface-learning approach. Thus, the teacher should be responsible for creating and managing the environment in order to promote students' use of a deep approach to learning. Ramsden (1985) suggested that a learning environment can be provided at different levels in order to encourage the students to adopt the deep approach to learning:

- a) at the level of the learning task: relevance of the task to the student promotes intrinsic motivation and a deep approach to learning.
- b) at the teacher level: teacher attitude, enthusiasm, his/her concern for helping students to understand and his/her ability to understand students' learning difficulties influence students' approaches and attitudes to studying.
- c) at the department or course level: the forms of assessment have a strong influence on approaches to studying, e.g. the assessment which rewards reproductive answers tends to encourage a surface approach to learning.
- d) at the institute level: differences in institutional values and purposes also influence students' learning.

In addition to providing learner autonomy in the learning context, using metacognitive strategies in learning was found to be related to students' adopting the deep approach to learning. The data from the study indicated that the strategic approach interacts with the deep approach and the surface approach in that it influences the level of academic performance, i.e. the deep strategic approach is the most successful and the surface unstrategic approach is the most closely associated with failure (Entwistle, 2000: 175). It can be seen that there is a tension between a deep focus on deriving personal meaning and an awareness of strategies employed to get a good grade.

There is a relationship between a deep approach and metacognition. Weinstein (1994) discusses a model of strategic learning which involves skill or prior knowledge of content and context together with relevant intellectual abilities, will or motivation and self-regulation. According to Weinstein's model, knowledge alone does not enable the learners to reach their goals, the learners need to have metacognitive awareness and control strategies they can use to orchestrate and manage their study and learning.

'This involves a number of interacting activities. Each activity interacts and dynamically impacts on all other components. On the macro level, relevant activities include time management and using a systematic approach for studying and learning (Weinstein (1988)... On the micro level self-regulation involves facilitating metacognitive awareness, monitoring strategy use, and monitoring understanding on a continuous basis (Brown, 1987; Flavell, 1979; Garner and Alexander, 1989) (Weinstein, 1994: 259-260).

Pintrich and Garcia (1994: 119-120) also emphasise the importance of selfregulation in study. The results from their study to examine the roles of rehearsal, organisation, elaboration, and self-regulation revealed that students who did better in the course used more deep-processing strategies like elaboration and organisation as well as attempting to control their behaviour by using planning, monitoring and regulatory strategies. The relationship between self-regulation and approaches to learning can also be seen from the work by Vermunt (1996). Exploring the interplay between external regulation of studying, i.e. the controls which are put on students through syllabus, assignments and assessment, and self-regulation, Vermunt distinguished four main styles of studying. The four styles were **undirected** (surface passive), **reproduction directed** (surface active), **application directed** (strategic) and **meaning directed** (deep). According to Vermunt's analysis, the passive approach indicates a lack of regulation in studying, the surface approach depends on external regulation whereas the deep approach draws on self-regulation. The strategic approach makes use of both external regulation and self-regulation. Weinstein (1994) also suggested that skill, will and selfregulation play an important role in students' approaches to learning.

• Summary of the Benefits of Developing Learner Autonomy in Higher Education

It can be concluded from the ideas and the research about student learning in higher education that autonomous learners are those that are able to learn in an independent manner and who can choose a suitable approach to handle their study. Therefore, the learning environment plays a part in the students' approaches to learning. Promoting learner autonomy in the learning process by giving choices and encouraging the students to use metacognition to regulate their learning help the students to adopt a deep approach to learning, which is regarded as favourable for university studies because it helps the students to study for meaning (Biggs, 1999:12-13). The teacher can help promote learner autonomy through providing tasks where the students are able to reflect, and use critical thinking, which enhances their intrinsic motivation to do the tasks. Teachers' enthusiasm and attitudes also affect the students' approaches to learning. Assessment which does not focus on reproduction of the knowledge which has been learned would also encourage the students' adopting a deep approach to learning. The designing of the RLTP in order to develop learner autonomy included these aspects and the data related to the subjects' adopting the deep approach to studying LNG 101 indicated the effect of the learning environment on their approaches to learning (see Table 3.1., 5.4. and 5.5.5.).

2.2.2. The Benefits of Developing Learner Autonomy in Language Learning

Effective learning in foreign language involves learning actively and meaningfully and so the concept of the deep approach to learning is also relevant to language learning. To learn a language, the students have to analyse the input they receive and relate it to their existing knowledge (Ellis, 1986: 13). Therefore, they have to test their hypothesis and draw upon their prior knowledge. Adopting the deep approach to learning would help the students to learn the language more effectively. To be good at language requires practice outside class where the students have to be independent and responsible for their own learning (Rubin and Thomson, 1994: 25). Promoting learner autonomy in class helps the students to be confident to be independent and responsible for their own learning. The arguments from the following authors shows how learner autonomy is regarded as favourable for language learning.

Littlewood (1996: 427) thinks that developing learner autonomy is relevant to language learning because it is related to many key concepts in language teaching, e.g. language learning requiring the active involvement of learners, the use of learner-centred methods and helping learners to be independent from the teachers in their learning and use of language.

Dam (1995: 2-3) regards developing learner autonomy as a means to enable the learners to be aware of how to learn, which facilitates and influences what is being learned. This process will help the learners to have an insight into how to learn. Since to learn is to develop a relationship between the learners' existing knowledge and the new knowledge, the more they are able to work out the use of language on their own through relating the new knowledge to their existing knowledge, the better they become at the language they are studying. Developing learner autonomy helps the learners to be actively involved in the learning process.

Ellis and Sinclair (1989: 1) think that helping learners take more responsibility for their own learning can be beneficial because learning can be more effective as the learners learn what they are ready to learn, they can carry on learning outside class and when they know about learning, they can transfer learning strategies to other subjects. Breen and Mann (1997: 134-136) view the benefits of being autonomous in the language classroom as being related to the learners, their learning, and the resource provided. Being autonomous helps the learners to have a sense of self and to be motivated to learn. They would be able to see the relationship to what is to be learned and how they will learn. Since being autonomous requires the students to have a metacognitive capacity in learning, they would be able to make decisions on what to learn, when, how and with what resources. Breen and Mann see autonomous learners as those that are able to work independently and in groups where they have to negotiate between the strategic meeting of their own needs and responding to the needs of other group members.

Although there is a measure of agreement in the literature that learner autonomy is important for language learning, there has been little empirical research on learner autonomy; as Hill (1994: 213) remarks, many learner autonomy initiatives are teacherled and the literature of autonomy focuses mainly on the means by which teachers can help the learners to take more responsibility for their own learning. Therefore, several commentators stress the need to conduct empirical research since autonomous learning often produces unanticipated outcomes. In the next section, the author will discuss the relevant research that contributes to the movement of learner autonomy in language learning in trying to demonstrate how promoting learner autonomy benefits language learning.

Research Related to Learner Autonomy in Language Learning

The development of learner autonomy involves many aspects of language learning. It covers learner training which enables the learners to be self-directed in learning such as drawing up learning objectives, doing self-assessment and so on; learner strategies which deal with training on the use of cognitive and metacognitive strategies; independent learning which deals with using the self-access resources to promote learner autonomy, etc. In this section, the author chooses the research that might influence the movement of learner autonomy such as the research on learner strategies by Naiman et al. (1976), which gave an insight into how the learners use strategies to deal with language tasks. Wenden, who is interested in learner strategies, thinks that one of the goals of the research on learner strategies is to produce an autonomous language learner because its results will guide the development of learner training activities so that learners become more efficient at learning and using the language and capable of self-directing their own learning (Wenden, 1987a: 8). This opinion is adopted in this research in the section on methodological preparation where metacognitive strategies are regarded as the strategies that should be included as they help the students to be self-directed learners (see 2.3.1.3.2.).

The implications from the research by Naiman et al. had some influence on the later research and/or practice in providing learner training which will be presented in the later section.

The other research described in this section is the research that aimed at investigating the benefits of providing learner autonomy in language learning, some of which played a role in designing this study. There will be more discussion on the research and/or experiments of how the concept of learner autonomy has been adopted in teaching/learning languages in later sections (see 2.3.1.).

Research on Strategies of Good Language Learners

The research conducted by Naiman et al. contributed to the movement of learner autonomy in that the implications of this research suggested the effect of individual differences in language learning as well as how to conduct language teaching which should focus on learning how to learn and decision-making in the learning process. The implications of the study also contributed to a re-defining of the role of the teacher which was training learners in the strategies that good language learners used and helping the learners to be aware of their own ways of learning. Promoting learner autonomy, e.g. involving the students in the decision-making process and allowing them to exercise personal choices, collaborative learning and teaching the learners to learn how to learn were regarded as important aspects that help the learners to be effective learners.

Naiman et al. (1976) conducted a large-scale research project on strategies of good language learners by focussing on personality traits, cognitive styles and strategies that were critical to successful language learning. The research aimed at analysing some characteristics of the learners and their learning behaviour in order to find out if good language learners tackled the language learning task differently from poor learners and if learners had certain characteristics especially personality and cognitive styles which predisposed them to good or poor learning.

The study as a whole suggested that the successful or good language learner with predetermined overall characteristics did not exist; there were many individual ways of learning a language successfully. The results from the adult interview study indicated common strategies and techniques which good language learners had employed or would employ but the results also indicated the complexity and individuality of each learning situation and career. The results also suggested that aptitude was less crucial than attitude to language learning, persistence, and willingness to adapt to varied learning situations over prolonged periods of time. The classroom study revealed personality and cognitive styles factors, e.g. tolerance of ambiguity and field independence were related to success in language learning. Attitudes to the language learning situation played a more important role in successful language learning than integrative or instrumental orientations.

The results from the study suggested how to teach the students more effectively, e.g. teachers and students talking about ways of language learning, classroom language learning being changed from mechanical routine into a more deliberate co-operative undertaking and a teaching how-to-learn approach. In order to be a successful learner, learners should be actively involved through playing a part in making decisions and being allowed to exercise personal choice. Class teaching should provide different learning environments for good and poor students or students should be helped to become aware of their own ways of learning and their particular preferences or difficulties.

Although the author did not directly adopt the ideas from the research conducted by Naiman et al. in this research study, the discussion of their research gives some background of the development of learner autonomy in language learning. The implications from this research with reference to promoting learner autonomy such as involving the students in decision-making process and allowing them to have choices in learning have an effect on the elements in learner training which will be discussed in a later section (see 2.3.). The suggestion on teaching the learners to learn how to learn is included in the definition of learner training by Ellis and Sinclair (see 2.3.).

Practice of Self-directed Learning

There has been a series of research projects and/or practice in providing learner autonomy conducted at CRAPEL in Universite de Nancy II since 1974 and the ideas of self-directed learning at CRAPEL have had considerable influence on the later practice at other institutions.

At CRAPEL, the training in self-directed learning and training in a language consisted of four main components

- animateurs or helpers whose duties were to provide the support needed to become autonomous;
- 2) learning materials made available to the learners;
- 3) a collection of sound and video recordings;
- 4) native speakers.

The learner who participated in the self-directed programme was required to define his own objectives, contents, methods and techniques and the manner in which his learning was done and assessed his own attainments. The learner could make an appointment with the animateur as often as he wanted. His meeting with the animateur gave him the chance to think about his learning so that he was able to develop the abilities he needed in order to take responsibilities for his learning.

CRAPEL provided a wide range of materials from which the learner could choose his own content. The native speakers supplied information at the learner's request, conversed with the learner to help him learn communicative skills, and acted as 'developers' for self-assessment. The training was regarded as a comprehensive self-directed system of learning intended for learners who were not yet autonomous. It was provided for students to work individually and in groups (Holec, 1981: 30-32).

The focus of self-directed learning on enabling the learners to define their own learning objectives, contents, methods and techniques and to assess their learning was adopted in the later practice such as that conducted by Moulden (see the following section) and that conducted by Little (see pp. 56-57). In this research study, the author adopted the ideas of helping the students to be self-directed learners by having them plan their learning where they had to set up their learning objectives, specify the content of what they wanted to practise and set up the criteria to evaluate if they reached their learning objectives (see 4.2.3.1.).

Research on Self-directed Learning

Moulden investigated to see whether self-directed learning would give better results than traditional learning. He conducted a small-scale research at the Ecole Nationale Superieure de la Metallurgie et de L'Industrie des Mines in Nancy (1985). Self-directed learners in this study were those who learned only what they needed to learn, using the materials and techniques chosen by themselves as being adopted to their tastes and requirements. They worked when and where it suited them best and at their own pace. The teacher-directed learners, on the other hand, learned according to what the teacher designed for them as regard syllabus, materials and methods. They were expected to work at fixed times in a fixed place with people of varying attainment levels, aims and attitudes towards learning. The subjects in Moulden's research were 13 students who were required to take English. They were second year intermediate students who had been exposed for a year to the Ecole's English teaching methods and to the necessity for private study imposed by the Ecole's teaching of technical disciplines. Moulden chose to apply self-directed learning (SDL) to the speaking of English by employing the self-directed listening comprehension practice provided in the sound library. In the SDL programme, the learners were required to have two contact hours/week. The classroom work consisted of activities aiming at making the students want to use English and making them more conscious of any deficiencies that needed working on. The students were allowed to design their own SDL programme.

To prepare the students for SDL, the teacher gave booklets called 'Objectives in English' and 'Learning English on your own' to the students. The first booklet contained lists of things which future engineers should be able to do in English. The students could add and work on other objectives not appearing in the lists. The students were asked to note how they rated themselves (0-5) for each activity, to prioritise the activity and to write down any progress made. Thus, this booklet was used to assess the students' present standing in English and as a work record to encourage forward movement. The second booklet stated advantages of SDL and advice on how to study in this way.

The teacher provided a twenty-minute-one-to-one interview with the students every two weeks to help the students with their linguistic problems and accustom them to planning and assessing their work by themselves. The interview was regarded as useful in giving everybody a regular opportunity to speak English.

The evaluation of the effectiveness of the SDL was obtained from questionnaires which asked the students to compare their year's work in the SDL mode with the previous year's work in terms of the progress they had made and any pleasure they might have experienced. They were also asked to compare the classwork and semiautonomous work carried out during the experiment. This impression was checked against by the teacher's impression. There were no firm conclusions as to the relative merits of the SDL and the traditional method as one third of the subjects said that they had made more progress with SDL while about half of them found SDL neither better nor worse than the previous year's work.

Most of the students found the SDL more enjoyable than the previous year's work. The majority of the students thought that SDL led to more progress in oral expression than had the previous year's work; this might be due to the opportunity to speak English during the interview. It seemed likely that this method would give good result with students who were motivated and keen on self-directed learning. The teacher interview revealed positive aspects of the SDL programme, e.g. the quiet students spoke more. The feedback session during the one-to-one interview allowed better assessment of students in terms of their effort, achievements and personality.

Although the data yielded positive results, there were some weaknesses of the study which might affect the validity of the data. The first weakness was that the data from the comparison of the two methods did not take into account some variables that might affect students' experience of traditional methods. The teachers who taught the subjects in the previous year were not the same for everybody; differences in the teachers' personality and competence in teaching English might play a part in the students' impression of traditional methods.

Using only a questionnaire to investigate the subjects' attitudes towards the programme seemed inadequate and Moulden admitted that he knew that some subjects wanted to carry on with the SDL programme only but did not know why. Some of the questions were leading questions such as the one asking if the subjects had made progress in oral expression. The answer would definitely be yes because all of the subjects were required to have a one-to-one interview with the teacher who used this

session to help the students practise speaking. Although there were weaknesses of this study and the samples were too small, only 13 students which was not generalisable, this research exemplified one way of conducting a SDL programme and the feedback of the learners was helpful for later practice.

The author used some of the ideas in Moulden's programme to discuss with the students their beliefs about language learning in the first class when the students were asked to fill in a proforma asking the students' opinions about learning English (see 3.3.4. and Appendix A). The idea about having the students record the activities done outside class was also adopted by means of providing an outside class activity record sheet but it did not work, for reasons which are discussed later (see 4.2.3.1.).

Research on Self-instruction

Another study which aimed at investigating how autonomy might aid language learning was conducted by Fernandez-Toro and Jones (1996). In this study, learner autonomy was related to self-instruction, which was the situation where the learners engaged in learning the language on their own. Fernandez-Toro and Jones conducted a learner experience survey with 70 registered Newcastle University Language-Centre Users with self-instruction experience. They were English native speakers and were randomly selected from a 1500-strong User database. The subjects were interviewed by telephone about all their language experience to gain a profile of the self-instructed learners' language background and behaviour.

The questions asked to establish learner profile included information about language(s) learned both in class and through self-instruction, how many languages they had learned, their command of those languages, whether they had used those languages in the countries where the languages are spoken, their drop-out and failure in learning those languages. In the open-ended self-report, the subjects were asked three questions about self-instruction, i.e. helpful and problematic features of self-instruction materials

used, independent activities/ strategies/ tips, and other helpful and problematic factors affecting learning.

The results indicated that motivation was the key factor to success. Failure to learn a language was sometimes ascribed to the intrinsic difficulty of the language or to the degree of interference from other languages. Command of the language appeared to be determined by the target environment and learning means, i.e. whether the learners had travelled to or lived in the country where the target language was used. With regard to learning means, self-instruction seemed to be a poor way of beginning a foreign language, i.e. few learners went beyond beginner levels and drop-out was high. However, when organised classwork was added to self-instruction, it helped the learners to go further than classwork alone or self-instruction alone.

Self-instruction was regarded as a good provider of discipline and motivation as well as of speaking practice. At lower proficiency levels, self-instruction by published packages or specialised materials was often used to compensate for what was left untaught by a class course. At higher levels, real-life speaking and authentic listening was found enjoyable and helpful. The data indicated that once classwork had helped learners to reach a level where they could tackle real interaction and real texts, autonomous activities enabled them to reach an even higher level.

With reference to learner strategies, most of the learners referred to 'discipline' or metacognitive strategies. Other self-instruction strategies appeared not to affect achievement directly, but rather to be techniques developed to cope with the specific challenges of learning a language without a teacher. The data also indicated that a good language learner was someone who made good use of his/her learning style's strengths and could compensate for its weaknesses. Regarding language aptitude, the subjects regarded it as something closely linked to two skills: a) effort/planning/discipline and b) the ability to handle the pace set by the course package.

This study viewed learner autonomy simply as independent learning rather than the development of favourable attitudes towards learning. Autonomous learners in this study were those who were capable of taking responsibility for their own learning outside class. Although the definition of learner autonomy was rather limited, the analysis of the data indicated the benefits of integrating self-instruction into classwork. This finding supported the use of self-access facilities to allow the learners to practise the target language as a supplement to classwork. The results of the study implied the need for the teacher to help the students to reach a certain proficiency level before encouraging self-instruction. The data also indicated the usefulness of metacognitive strategies in enabling the students to become good language learners without the help of the teacher.

The results from this study helped the author at the stage of designing the RLTP, e.g. making decisions about what elements to include in the RLTP. The author chose to focus on the use of metacognitive strategies as a tool to help the students to be selfdirected learners in addition to providing freedom in learning because they help the learners to be aware of what they are learning. The strategies also enabled the students to be independent learners as revealed by Fernandez-Toro and Jones' research.

Research on Language Acquisition in an Autonomous Learning Environment

Even though the concept of learner autonomy has been practised for many years and there has been an attempt to integrate learner autonomy into classroom teaching, there has been little research conducted to evaluate the successes and failures of the learners in terms of linguistic and other outcomes. Dam and Legenhausen (1999) reported the results of the Language Acquisition in an Autonomous Learning Environment (LAALE) project which started in 1992. The project aimed at observing the language development of a Danish comprehensive school class which had been exposed to an autonomous language learning context from the first English lesson onwards. This project was extended from the six-year experiment which Dam and Gabrielsen (1988: 19-30) conducted informally with learners at a comprehensive school in Denmark (see 2.3.1.1.1.).

In the autonomous classroom, the students were given responsibility in planning and conducting teaching-learning activities through negotiating their aims and objectives with the teacher so that they became more active in learning. The syllabus was derived from the students' own needs and interests. The students were required to define their own objectives within the curricular guidelines, to choose relevant materials and activities and to evaluate the learning outcomes. The students were also encouraged to be aware of the aims and process of learning and to develop a capacity for critical reflection. Evaluation was viewed as the pivot of a good learning/teaching cycle; thus, it was an integral and continual classroom activity carried out by students and the teacher. Evaluation had a retrospective and prospective function where the learning experiences of the past were reflected upon and transformed into plans for future action.

The LAALE project tried to collect data of different language aspects, such as vocabulary, grammatical structure, oral proficiency, at the various stages. The data was obtained from tests, classroom data of students' self-evaluation and the teacher's evaluations. In order to have baseline data, the researchers compared and contrasted the findings with the language development of a German grammar school class. Some of the tests were administered to students at the same grade in other German and Danish comprehensive schools; these classes were regarded as more traditional in the sense that the focus in these classes were more on teaching procedures than on learning processes, i.e. they followed a pre-defined, textbook-based syllabus. The activities in these traditional classrooms largely consisted of questions on texts, guided dialogues, and fill-in exercises.

The results indicated that the vocabulary accessed by the autonomous learners contained a large number of words not included in frequency lists for teaching, and they reflected the learners' specific interests and their authentic communicative needs whereas traditional learners relied exclusively on syllabus vocabulary. Autonomous learners were quite prepared to get involved in high risk, purposeful and authentic communications. The scores of C-Tests of autonomous classes were better than traditional classes, probably because autonomous learners were more systematically exposed to authentic materials not devised for teaching, which included many unfamiliar structures and unknown words. The C-test is a variant of the cloze test in which the second half of every second word in a reading passage is deleted (Bachman, 1990: 270). Thus, from the beginning, the autonomous learners were forced to develop strategies for coping with uncertainty and ambiguity. With the ability to conduct self-evaluation, the data indicated that the self-evaluation of autonomous learners was as accurate as teacher ratings or C-Test measures. This might come from the constant dialogue between learner(s) and teacher and between the learners themselves about the learning process and its outcomes that heightened learners' awareness of learning and of achievement levels in various linguistic skills.

Since the development of learner autonomy in the above study was processoriented and the classroom context was complex, it was difficult to pinpoint what factors affected the language attainment of the learners. The author thinks that the data obtained from the comparison and contrast between the autonomous classroom and the traditional classrooms was not quite valid because the study did not control variables such as teaching and learning process of the traditional classrooms. However, the data that can be used to support the development of learner autonomy is the accuracy of students' evaluation. Self-assessment and self-evaluation have been used in order to develop learner autonomy but with learners at higher levels rather than with learners who just started to learn English as the subjects in this study (see 2.3.1.1.1.: Dickinson's and Thomson's examples). The results of this study may give confidence to teachers who want to encourage beginners to evaluate their learning performance.

The research discussed in this section indicates how adopting learner autonomy would be beneficial for language learning. The students were motivated to learn in the self-directed learning mode. The students who were exposed to the process of helping them to be autonomous learners seemed to be ready to face communicative tasks and to develop a wider range of vocabulary because the learning materials were not restricted to the classroom texts. The students developed strategies that helped them to deal with uncertainty and ambiguity in language learning and their self-evaluation was as valid as the evaluation conducted by the teacher and the standardised test. Self-evaluation was regarded as a tool that helped the learners to be aware of the learning process. The process of reflection on their performance would also help the students to be able develop themselves. With reference to self-directed learning, the research seems to suggest ways to provide choices in learning for mature students. The results from the three pieces of research also suggest the importance of the teacher in providing opportunities for SDL and self-instruction learning; the students still needed linguistic support from the teacher. This finding implies the desirability of a balance between teacher-direction and learner autonomy.

2.3. Means of Developing Learner Autonomy

So far, the author has given the background of learner autonomy and how it benefits learning in higher education and in language learning by using the evidence from the relevant research to support the discussion. This section concerns the means to develop learner autonomy in language learning. Learner training is the idea that has been discussed in the literature of learner autonomy in language learning to be a means of promoting learner autonomy. The author will discuss the content of learner training by presenting the theory and showing the application of the theory by giving examples of the practice in various educational contexts. These examples are relevant to this research study in that the author adopted some ideas from them to be used in designing the RLTP.

2.3.1. Learner Training

In language learning, learner training for learner autonomy is a term used to refer to the process which enables the learners to become more responsible for their own learning, i.e. to be more active in the learning process. In this research study, the author used the term *learner training programme* for her intervention in order to help the students to develop learner autonomy.

Learner training in language is a broad concept, i.e. different learner training programmes cover different aspects depending on the context and what is regarded as important for the learners in that context. Therefore, in this section the author will discuss a few ideas of learner training which have been widely adopted before making conclusions of the main elements of learner training.

Holec (1981: 22) discusses the '*deconditioning*' process and a process of acquiring the knowledge and methods to assume responsibility for their learning as elements essential to develop autonomy. The *deconditioning* process is related to the psychological aspect of learners as it helps the learners to change the prejudices they have about learning languages and their roles as language learners. The *deconditioning* process enables the learners to be more confident to learn on their own. In addition to dealing with the psychological aspect, Holec suggests providing methodology that enables the learners to become more independent in the learning process by using tools such as dictionaries and grammar books, learning to analyse their performance and so on. Holec recommends that the two processes should be conducted in parallel so that the learners will gradually proceed from a non-autonomous state to an autonomous state.

Dickinson (1987: 125-126) refers to psychological preparation as the process that helps the learners to come to terms with their feelings about self-instruction, i.e. their anxieties and their aspiration for self-instruction, so that they become ready to take responsibility for their own learning. He also suggests methodological preparation which aims at helping learners to acquire the abilities and techniques to undertake selfinstruction learning successfully. Dickinson regards learner training as an essential preparation for learners who need or wish to become partly or wholly autonomous in their learning (Dickinson, 1992a: 13). He suggests six ways that the teacher can help promote independence.

- Showing learners that the teacher approves this mode of learning by giving them more independence in the learning process.
- Providing learners with successful experiences of independent learning so that the learners are convinced that they are capable of engaging in independent learning.
- Giving learners more opportunities to exercise their independence.
- Helping learners to develop learning techniques so that they can exercise their independence.
- Sharing language learning experience with learners so that they will develop awareness of what to expect from the language learning task and how they should react to problems in learning (Dickinson, 1992a: 2-3).

Dickinson's suggestions imply his emphasis on enhancing learners' confidence to learn by themselves through providing the learners with hands-on experience and teaching the necessary techniques for independent learning.

Ellis and Sinclair (1989: 2) focus on learning strategies. Therefore, they refer to learner training as the process aiming at helping the learners to think about the factors that affect their learning and discover which learning strategies suit them best so that they will become more effective language learners and take on more responsibility for their own learning. Learner training in Ellis and Sinclair's view thus focuses on **how** to learn rather than **what** to learn.

Wenden (1986: 316-318) suggests that to incorporate learner training in the classroom, the learner training should be explicit in purpose. The content of training should include cognitive and metacognitive strategies. The training should be tied to a language learning experience. She suggests that the training should be in context

because it enables the learners to perceive the relevance of the task, and enhances comprehension and facilitates retention.

All of the above ideas seem to suggest that learner training in the English language learning context should focus on the learning process and there are **three aspects taken into account when providing learner training:**

- a) providing an environment where the learners can experience and exercise autonomy,
- b) providing psychological preparation to change learners' attitudes towards learning and
- c) focusing on learning strategies that enable the learners to take charge of their learning successfully.

Approaches Used to Develop Learner Autonomy in Higher Education

Developing learner autonomy in higher education has been discussed with regard to teaching approaches; the ideas were similar to providing an environment where the learners can experience and exercise autonomy discussed in the literature of learner autonomy for language learning. Boud (1988: 25-26) discusses three main approaches which have been used to develop learner autonomy.

 The individual-centred approach. This approach focuses on individual learners and their needs. Teachers, co-learners and other resources for learning help to facilitate the attainment of the goals of the individual as defined by the individual. Groups of learners may provide general support but they do not have a specific role or commitment to any project other than their own. A learning contract is normally used to facilitate this approach. The learners have to prepare individual contracts which specify learning goals, activities in which they will engage, criteria for judging their performance and how the contract will be assessed.

- 2. The group-centred approach. This approach focuses on the needs of a particular group of learners and a strong commitment to group learning and group processes. Individuals pursue their own learning needs within the context of the group. Much learning occurs from interactions among group members. Curriculum negotiation is a common theme in the group-centred approach. In this approach, the learners should make their own decisions rather than to be required to accept someone else's decisions.
- 3. The project-centred approach. In this approach, the outcome of the project is as important or more important than the individuals or the group who work on it. Learning through a project is one of the most common activities in courses in all disciplines. This might be because the students work from their own needs and while doing the project, they have freedom to choose the content and the methods of completing it. They have to negotiate among group members in order to reach the conclusions and go through the process of planning, monitoring their difficulties and evaluating their performance.

Developing learner autonomy in higher education seems to focus on learners' goals and their responsibility by using the task such as the learner's contract and a project in order to help the students go through the process of making decisions in learning. Basically, learner autonomy is promoted in order to help the learners to become more active in the learning process which will help them to learn better as they learn on their own. Those approaches also have been used in English language learning. The use of contract to focus on individual learner's needs is seen from the practice at CRAPEL (see pp. 32-33) and the practice by Little (1988, see pp. 56-57). An example of the group-centred approach is the work by Farmer (1994, see pp. 55-56). Fernandez-Toro and Jones (1996) used a project and a contract to promote learner autonomy (see pp. 78-81). The project-centred approach has been used in language learning to enhance interpersonal relationship and involvement and development of the individual. The project helps to bridge the gap between language study and language use. To do the

project, the students are more responsible for their own learning whereas the teacher acts as facilitator or consultant (Fried-Booth, 1986: 6-8). The idea of the project-centred approach had been adopted in the LNG 101 project (see 3.2.1.). In this research study, the author still kept the project but modified how to handle it in order to make the process of promoting learner autonomy more meaningful (see Table 3.1.). The idea of the individual-centred approach was adopted in the learning plans (see 4.2.3.1.).

The above approaches state that promoting learner autonomy can be conducted both as individual work and as group work. Boud (1988:28-29) does not regard autonomy as individualistic or as concerned with learners in isolation from one another. To him, interdependence, i.e. learners working with and helping each other, is an essential component of autonomy in action because learning is not conducted in a vacuum and there is an unavoidable dependence at one level on authorities for information and guidance. To develop learner autonomy is a process starting from dependence and moving to counter-dependence, then to independence and finally to interdependence. Dependence is the first stage when the learners enter the situation new to them. When the learners are uncertain, they need to depend on their friends or the teacher or they may act as observers without making any commitment to participate, i.e. they are counter-dependent. Once the learners develop a sense of themselves as individuals who are able to act independently, they may perceive themselves as autonomous and independent of the control of others. However, the learners at this stage often express negative feelings and argue with others. At the interdependence stage, the learners accept the individuality of others and involve themselves in activities leading to mutuality, co-operation and negotiation with others. The learners develop a sense of balance between themselves and others (Brundage and MacKeracher, 1980: pp. 54-55).

Ryan's account is in accord with the idea of interdependence. He describes autonomy as a process where one experiences the self to be an agent, the 'locus of causality' of one's behaviour. A sense of autonomy produces actions which are 'authentic' in the sense that one identifies them to be one's own. He sees the achievement of a sense of autonomy as one of the most fundamental needs and purposes of human beings. Another fundamental need is for what he calls 'relatedness', i.e. for 'contact, support and community with others.' If this contact with others is felt to be 'instrumental or controlling', it can lead to loss of a sense of autonomy. However, if contact is felt to be not controlling but supportive and facilitating, it does not interfere with autonomy. He uses the term '*autonomous interdependence*' for relatedness (Ryan, 1991: 210-227).

Thus, it can be said that helping the students to develop learner autonomy does not mean encouraging them to work on their own from the beginning. Group work is the link between their dependence and self-reliance. It also demonstrates the students' autonomy in a sense that they have to balance between themselves and others.

The suggestions of approaches to develop learner autonomy in higher education and the discussion of interdependence expands the idea of learner training for learner autonomy in language learning by suggesting the importance of helping the learners to know themselves and to be able to work with a sense of '*self*' within the community or a group if it is in a classroom context. This issue is also raised in the discussion of how the teacher should conduct the class to promote learner autonomy (see 2.3.2.).

The following sections will be a discussion of what has been done in order to provide learner training to develop learner autonomy in a language learning context. The practice in different contexts is presented as examples of how the theory has been applied.

2.3.1.1. Providing an Environment to Promote Learner Autonomy

Those who practise promoting learner autonomy tend to provide the environment to promote learner autonomy in two ways: 1) allowing learners to be self-determining and 2) setting up self-access facilities where learners can work in the independent learning mode. The discussion of these two aspects incorporates ideas from general education and also from English language learning, because the concept from general education is a basis of practice in different areas of education including English language teaching and learning. The literature reviewed and the examples presented in this section provide background of how to provide an environment to promote learner autonomy and how the ideas from the practice were adopted in this research study.

2.3.1.1.1. Encouraging Self-determination

Self-determination which is autonomy is seen as a prerequisite for any behaviour to be intrinsically rewarding (Deci and Ryan, 1985: 11-40). If individuals perceive themselves as being capable of performing successfully in a given situation and they also perceive that they can control the situation in some meaningful ways, then they are more likely to be intrinsically motivated than when they do not have either or both of these self-concepts. Deci et al. (1991: 336) state that evidence showed that when college students were given choices about what tasks to engage in and how much time to allot to each, they were more intrinsically motivated than the subjects who were assigned the task and time.

The following section is a discussion of the practice concerning how selfdetermination could be encouraged through providing choices in learning so that learners will be more involved in the learning process through making decisions on the choices the teacher provides and involving the learners in the evaluation process.

1. Encouraging Self-determination through Choices in Learning

An example of creating a classroom environment to promote learner autonomy can be seen from the experiment by Dam and Gabrielsen (1988: 19-30). They conducted an informally organised six-year project in which learners at compulsory school were involved in planning, organising and evaluating their classroom learning of foreign languages. One fifth form class (11 years old) who started their English language learning was used as an experimental class. The organisation of teaching emphasised the following aspects: a) greater influence/responsibility of learners in planning and conducting teaching-learning activities which would lead to a greater degree of active involvement/better learning in the actual teaching/learning situation, b) learners' awareness of the learning process and c) openness to individual planning and negotiation of aims and objectives as they were basic aspects of a communicative classroom.

The students were asked to bring materials written in English that they wanted to study to class. They were asked to discuss among themselves and with the teacher which activities they wanted to work at. They arranged their own syllabus deriving from their own needs and interests. They were required to register their progress made, means of learning and modes of learning they engaged in, to justify decisions made as to immediate aims and objectives for learning, to be willing to review and to evaluate their work.

The report from the teacher revealed the students' positive attitudes towards accepting responsibility for their own learning and for management of social interaction in the classroom. The students developed an awareness of learning both in relation to their own role and to language. Words and 'useful expressions' were the linguistic categories which received spontaneous attention by all learners. In self-assessment according to externally defined criteria, the students showed their consciousness of their own relative strengths and weaknesses. All of them appreciated the opportunity for individual choice and definition of task. Weak students remarked that they felt more secure and learned more and they generally retained high motivation for learning. The students often showed confidence in their capacity to go beyond what was already learned, as shown in their willingness to tackle difficult comprehension tasks on their own. However, learning outcomes as measured in formal examinations (expression and accuracy) were more or less the same as for the students who studied in more 'traditional' classroom settings.

2. Involving Learners in the Assessment Process

The use of collaborative assessment was exemplified in a two-year research project conducted with course members studying for the Post-graduate Diploma in Linguistics and English Language Teaching (PGLELT) in the Scottish Centre for Education Overseas at Moray House Institute of Education in Edinburgh (Dickinson, 1988). The subjects were 22 course members who had at least three years experience in foreign language teaching. Most of the subjects were from very conservative educational contexts, which were highly competitive, elitist, and authority based. Thus, tutors were often perceived as inviolable authorities, both in terms of the content of the subject and the assessment of work. The course members had to gain pass grades (at least D on an A-E scale) in six compulsory assignments in the course. The results of the study showed the course members were able to assess their own work at about the same level as tutors and they perceived collaborative assessment as a fairer means of assessment than the traditional ones. They benefited in their knowledge of and attitudes to assessment and became more self-directed. The assessment criteria were more thorough and better understood by the course members. It was possible for the course members to enter into meaningful negotiation with the tutors on criteria and on a specific difference in grades awarded. The course members did not use the scheme only as a way of getting improved grades when they had no sincerely held beliefs that they deserved these.

Thomson (1996: 78-88) introduced a self-assessment project in order to develop self-directed learning to students taking Japanese at the University of New South Wales as well as to solve the problems of diversity of students' background in Japanese. There were 100 subjects in this study and 98 students were able to complete the project. Selfdirected learners in this study were regarded as those who could set up a favourable climate of learning for themselves, diagnose their own needs realistically, translate learning needs into learning objectives, select tasks and strategies to achieve the objectives, and assess their own achievements for feedback on how to improve their performance. The project had three stages: a planning stage, a monitoring stage and a review stage. In the planning stage, the learners had to assess the weaknesses of their Japanese and communication skills and then draw up learning objectives and plan their learning activities and their assessment measure. The planning sheet was used as a learning contract between the student and the instructor. In the monitoring stage, the learners assessed their progress and made adjustments to their plans. They met with the instructors for consultation if they felt it was necessary. In the review stage, the students reviewed their objectives, learning activities and progress and rated their performance on a scale of 0 to 10. This assessment made up 10% of the total marks. The project was evaluated by the student assessment, student feedback and the instructors' observations.

The survey results showed an overall positive attitude of students to the selfassessment project and it made the course more learner-centred. Since the group was diverse, the self-assessment project gave the students opportunities to learn what they felt they needed to learn. The course was taught in the traditional mode of lectures, tutorials and uniform testing; the project gave the students the chance to be themselves. Although the learners had positive attitudes towards the project, they expressed a lack of confidence in needs assessment, continuous assessment and final assessment especially in assessing their performance without the assistance of their instructor. Few students were used to assessing their own performance formally. Although they continuously assessed their own performances internally in classrooms and in real-life interactions, they were seldom aware of it or had rarely externalised it.

The students were conditioned by their many years of experience with traditional school culture which did not promote students' responsibility in assessment. The native culture also influenced the students' ability to self-assess, e.g. for many Asian students, taking the initiative and responsibility in learning meant stepping over the line drawn between the teacher and learners. The data also indicated that a lack of adequate skills in needs assessment and continuous assessment was reflected by inappropriate selections of objectives and activities. With regard to self-esteem, the project indicated that a

group of Asian female students were prone to rating themselves low probably due to their low self-esteem as modesty is valued by Asian females.

The above study showed how the teacher tried to promote some autonomy by involving the students in the assessment process and trying to raise students' awareness of their needs. However, the teacher still retained most of the authority because she allocated only 10% of the total scores to involve the students in the assessment process. In addition to the data about Asian students which revealed one barrier to adopting self-assessment, the study implied the need for psychological preparation to raise students' self-confidence in assessing their performance.

In this research study, the author tried to provide as many choices in the learning process as possible (see Table 3.1.) so that the students would be able to exercise their autonomy through making decisions in their learning. The students were involved in the assessment process both in peer- and in self-assessment (see Table 3.1.). The students' perception of freedom in learning was revealed in 5.4.

2.3.1.1.2. Providing Self-Access Facilities

The other means of providing an environment to support the promotion of learner autonomy is through the use of a self-access centre (SAC). This idea is relevant to this study in that at KMUTT, the Self-Access Learning Laboratory (SALL) has been established to promote learner autonomy. Encouraging the students to be independent language learners through the use of the SALL was one of the elements of the Original Learner Training Programme (OLTP) conducted at KMUTT (see 3.2.1.). There was evidence with respect to how to prepare the students to use the SALL which indicated that the OLTP needed to be improved (see 3.2.1.). This section provides a background to the relationship between the SAC and learner autonomy in language learning, how to prepare the learners to use it and how it was used. The author adopted some of the ideas from that practice of using the SAC to revise the OLTP (see Table 3.1.).

Providing facilities such as a self-access centre (SAC) is suggested as a means to support learner independence and responsibility (Holec, 1988: 10; Dickinson, 1987: 106 and Esch,1996: 39). Benson (1994: 8) views the relationship between learner autonomy and the SAC as autonomy representing the goal; self-directed learning, a means to achieve it and the SAC, an environment within which it can be achieved. When using the SAC, the learners can do the following things: 1) decide on what to do 2) find the appropriate material to work on for the objectives decided on 3) use the materials. In other words, to work in the SAC, the learners are expected to know how to do particular activities, what to do first and next and how to assess if they have achieved the objectives set. Thus, a self-access centre can be regarded as the place where learners can access materials of their choice and perform tasks set by themselves at a time convenient to them.

Sheerin (1991a: 3-7) regards the self-access centre as a support for learner independence and responsibility as well as a practical solution to many language teaching problems: mixed-ability classes, students with different backgrounds and needs, psychological and personality differences between students, etc.

Since the learners are expected to work independently in the SAC, self-access materials and preparation for the learners to work successfully in the SAC are the main concerns in the discussion of self-access learning. Sturtridge (1982: 8) describes self-access materials as the materials that enable the students to decide what work they want to do, to find the material, to correct or assess their answers where necessary and to evaluate their work where desired. The materials have to be well designed to make the students feel secure to work alone. Self-access materials come closer to meeting the need of the individual student in that they allow him/her to work at his own pace on the topic of his choice and decide what work s/he will do and how s/he will allocate his/her time. It is suggested that the SAC should have staff to provide guidance and counselling to the users (Sheerin, 1991a: 33). The users may need guidance and counselling to help

them analyse their own needs and set their own objectives as well as to help them in evaluating and monitoring their own progress.

• Preparing Learners for Self-Access Learning

Preparation of learners to use the SAC successfully is an issue that has been stressed in the literature. With regard to the use of the SAC, Sinclair (1996: 159) suggests a period of guided induction as preparation for self-access learning. The induction sessions should focus on the layout, systems and procedures in the SAC, provide learners with opportunities to try working in it and reflect on the results of working with the system; the learners should have hands-on experience to explore and try using the SAC. However, other authors discuss many other ways to prepare learners to adopt self-access learning; the suggestions deal with both psychological and method Ebrginstance Dickinson (1992b: 21-29) argues that introducing learners to the mechanisms of operating the system is not as important as finding ways to help learners to become more active language learners. The users must be encouraged to adopt active and independent involvement with the learning tasks and to pursue an approach to autonomy. He suggests the skills that learners should acquire before using the SAC, e.g. understanding their objectives, following up their own purposes, implementing selected learning strategies and evaluating their own performance. Sturtridge (1992: 13-14) argues for the importance of changing learners' attitudes, as using the SAC may be a giant leap for many learners. She suggests the learners should be allowed to work in their own way even if the teacher thinks these strategies are wrong. Sheerin (1991b: 151-152) emphasises the importance of needs analysis to overcome the problem of learners' resistance to engage in an independent learning mode in the SAC. Once goals have been formulated and pathways decided, learners should be encouraged to evaluate and monitor their own progress. McCall (1992: 6) argues for drawing up detailed profiles of learners to show how they use the centre and the context in which they are learning. She emphasises the importance of discussions with users, with the manager of the SAC and with teaching colleagues in order to determine how best to decide objectives and to prepare for learning.

However, in the situation where learners are passive such as in formal education in Hong Kong where learners are conditioned to believe that in order to learn one must be taught and that the teacher holds a monopoly over the transmission of knowledge (Farmer, 1994: 14, Littlewood, 1999: 84-85), there are some difficulties about directly adopting the above ideas. Farmer thinks that basically the learners do not know how to develop autonomy and they have difficulty in accepting the notion of independent learning. Therefore, they resist the idea of assessing their own needs, planning their own programme and selecting relevant materials. The other difficulty comes from the learners' lack of confidence in using English; thus, they do not want to undertake independent learning; the students need guidance and encouragement from the teacher in working through activities.

To cope with these problems, the Study-Centre at Hong Kong Polytechnic adopted a group oriented approach to prepare learners to learn in the SAC successfully. The study programme consisted of a group profile, foundation component, needs assessment and core component. The group profile dealt with introducing the centre; an informal talk with the teacher at the centre helped to build up rapport and gave the opportunity for the students to express their concerns and interests. Then the groups worked through a set menu of activities so that the teacher could identify the students' areas of weakness and the students could make their own choices as to the areas of language and skills they needed to practise later. This process was included in the foundation component. In the needs assessment process, the students filled in a needs analysis questionnaire with guidance from the teacher to identify the areas of language in which they felt they needed practice. Then the group drew up a detailed and extensive programme of study to include the specific materials they would use. After identifying the areas of difficulty that the group had in common together with considering students' weaknesses identified by class teachers and students' own interest, the group chose an area and activity to work on at the start of each session. This process was regarded as the core component. The whole programme took 20 sessions. The evaluation of the programme was quite positive especially about needs analysis and

choices. Although the majority of students still believed that 100% teacher-contact was important, 61% of the students were satisfied with the amount of time spent with a teacher (roughly 80% of a session) in the Study-Centre (Farmer, 1994: 16-20).

The above practice suggests that in the learning situation where the learners seem to resist independent learning which is provided in the SAC, the group oriented approach under supervision from the teacher works well to prepare the students to work in the SAC successfully. The basic components were those discussed in the literature, e.g. needs analysis of the learners, their goals, their interests and their choices of the areas and materials to work on. This example implies the importance of hands-on experience and support from the teacher in preparing the learners to work in the SAC.

How hands-on experience might have an effect on encouraging the students to engage in independent learning in the self-access centre will be seen from the results of this research study (see 5.3.1.).

• The Use of the Self-Access Centre

In the literature, the self-access centre has been employed as a support to classroom-based curricula and for those who learn independently. For instance, at Hong Kong Polytechnic, the SAC or the Study-Centre offers a referral programme or remedial programme to students who require supplementary tuition as identified by their regular English-class teacher. The students are referred to the Study-Centre in pairs or small groups. A summer programme is offered to all the students who would like to practise their English (Farmer, 1994: 14).

Little (1988) investigated the use of the SAC for independent study. He used a language laboratory to introduce autonomy and self-direction in teaching German which was an optional course for Engineering students at Trinity College, Ireland. The BBC German kit which was a self-instructional course focussing on communicative functions was used as materials for the beginners and the intermediate students. Self-direction in

his research referred to the organisation of learning, whereas autonomy referred to the state of independence where the students were able to take full responsibility for their learning. The aim of the experiment was to promote learner autonomy through a counselling service which would encourage learners to identify and develop interests and learning techniques which were specific to them as individuals. A counsellor helped learners to find appropriate supplementary learning materials and to discover learning routines that matched both the materials and their individual learning styles. Learners at both levels were encouraged to seek assessment on their special interests.

At the end of the two-year research project, the number of students dropped from 63 to 9 students, all of whom presented themselves for assessment; those who went through the two-year programme participated actively. The programme was optional; for most participants it involved a radically new approach to learning and the course in Engineering had a very full timetable. Therefore, it was not easy for participants to make time for regular learning in the SAC. Most of the participants in the programme claimed to have difficulty in coming to terms with self-directed learning. The students seemed to treat the counselling service as the last resort they turned to for help when they had difficulties in undertaking self-study. The positive evaluation of the programme was that it was able to respond to the individual needs, interests, level and learning styles of participants in a way that would be difficult to achieve in a class-based course. The experience of counselling showed that it was possible for one person to cover a wide range of therapeutic and pedagogical functions. Thus, this kind of selfdirected learning was economical as well as pedagogically attractive. With regard to students' performance, some of the participants (mostly beginners who did not venture beyond the BBC German Kit) showed that, given appropriate learning materials, it was possible to achieve functional competence in a foreign language with hardly any counselling support at all.

Lum (1996: 116-123) provided learner training to prepare learners to direct the course of learning in the self-access centre with minimal supervision at the Specialist

Teachers' Training Institute, Malaysia. The learner training involved changing psychological attitudes towards what learning was and confidence building as well as training of skills and strategies required for independent learning. Students learned to select their own learning objectives, identify the relevant resources, design their own learning plans, assess their own performance and select the appropriate strategies. The degree of independence was reflected in the students' active participation in learning. The students expressed their gaining confidence and independence after they went through the systematic programme of learner training. The findings also indicated that the students acquired more learning strategies through their own experience in using self-access materials.

The above two studies exemplify how the SAC could be used to promote learner autonomy through involving the students in an independent learning mode. The results seem to imply the degree of readiness for the independent learning mode. For instance, in the context where the learners were more familiar with learner autonomy as the Irish students in Little's study, the need for learner training on confidence building and strategies for independent learning might not be as great as in the Malaysian context. The teacher and/or a counsellor was regarded as important for both cases but his/her role was different. In the context where the learners were more autonomous, the teacher could facilitate the process of independent learning by helping the students to identify their interest, their learning style and appropriate learning materials.

In the Malaysian context, the teacher had to help the learner to be confident in an independent learning mode and teach them steps of how to handle this learning mode through setting their learning objectives, designing their learning plan, assessing their own performance, selecting materials and appropriate strategies. The investigation by Little also aimed at showing that self-access learning was able to replace classroom learning and it was an economic way to solve the problem of not having enough teachers to meet the demands of the students.

2.3.1.2. Psychological Preparation

The second means to promote learner autonomy is by psychological preparation. This section is a discussion of how to prepare the learners psychologically to have positive attitudes towards learner autonomy. Since attitudes are related to motivation and motivation plays a part in developing learning behaviour, the discussion will cover the selective theory of motivation relevant to this research study. The author chooses to discuss types of motivation that play an important role in education, in language teaching/learning and those that underpin the activities used in the learner training; the author also took these ideas into consideration when designing the RLTP. The types of motivation that are discussed in this section are intrinsic/extrinsic motivation, integrative/instrumental motivation, self-efficacy, attribution theory and confidence. In addition to changing students' attitudes, which is related to motivation, the author will discuss how to deal with learners' beliefs, which is another area that has been worked on as it affects the development of learner autonomy (Wenden, 1991: 54-55; Cotterall, 1995b). Finally, the practice of how to provide psychological preparation is presented at the end of this section.

Holec (1981: 22) uses the term the '*deconditioning*' process to mean psychological preparation. To him, psychological preparation is the process whereby the learners free themselves from many kinds of assumption and prejudices or wrong beliefs about learning languages that may inhibit them from learning the language successfully. This process can help the learners to develop self-confidence to work independently. Beliefs and attitudes learners hold have much influence on their learning behaviour; as Horwitz (1987: 126) suggests, wrong beliefs about language learning may lead to the use of less effective strategies. Since all behaviour is governed by beliefs and experience, it is believed that autonomous language learning behaviour may be supported by a particular set of beliefs; the beliefs which learners hold may either contribute to or impede the development of their potential for autonomy (Cotterall, 1995b: 196). Dickinson (1992a: 18) views psychological preparation as the process that persuades the learners that they have the ability to be active and independent in their learning and that they should change their attitudes to learning. In order to help the learners to be able to change their attitudes and be willing to take responsibility for learning, there are two affective factors that play an important role: attitudes and motivation.

2.3.1.2.1. Attitudes and Motivation

Allport (1968: 63) defines an attitude as 'a mental and neural state of readiness, organized through experience, exerting a directive dynamic influence upon the individual's response to all objects and situation with which it is related.' Rajecki (1982: 4-6) analyses Allport's definition and concludes that an attitude is a private experience of individuals which arises from single and multiple experiences, both direct and indirect. He argues that knowing a person's attitudes gives us confidence that we can predict his/her actions in general (Rajecki, 1982: 6). Gardner (1985: 8) views attitude as one of the important factors that affect the language achievement as he says that

'if the students' attitudes are favourable, it is reasonable to predict, other things being equal, that the experience with the language will be pleasant, and the students will be encouraged to continue positively.'

Motivation is often used with respect to language learning as a simple explanation of achievement. Gardner (1985: 10) refers to motivation in the language learning context as the combination of effort and desire to achieve the goal of language learning plus favourable attitudes towards learning the language. Thus, according to Gardner, attitude is a component of motivation. Motivation is considered by many to be one of the main determining factors in success in developing a second (SL) or foreign language (FL). It determines the extent of active, personal involvement in L2 or second language learning (Oxford and Shearin, 1994: 12). Since in this study, the development of learner autonomy is conducted within an English class, students' motivation to learn a foreign language is one of the important aspects that have to be taken into account. With regard to autonomy, Dickinson (1995: 168) argues that several areas of research in

general education suggest that motivation to learn and learning effectiveness can be increased in learners who take responsibility for their own learning, who understand and accept that their learning success is a result of effort.

With reference to the teaching and learning situation, intrinsic/extrinsic motivation is probably the types of motivation that have been discussed the most (Spaulding, 1992: 31). Intrinsic rewards are those that come from within the students or from the task itself; for example, students engage in a task because they enjoy doing it. Their enjoyment is regarded as intrinsic motivation that keeps them doing that task. It is seen as more powerful than teacher-provided reward. Extrinsically motivated behaviours are those that the individual performs to receive some extrinsic rewards such as good grades or the avoidance of punishment. Deci and Ryan (1985: 245) think that intrinsic motivation is a central motivator of the educational process. Intrinsic motivation is related to learner autonomy in that promoting learner autonomy is regarded as a prerequisite for any behaviour to be intrinsically rewarding (see 2.3.1.1.1.). In addition, intrinsic motivation is related to the deep approach in learning whereas the surface approach is linked with extrinsic motivation (Entwistle, 1987: 136). Therefore, it was hypothesised that the students' enhancement of intrinsic motivation to learn at the end of the RLTP would indicate the effectiveness of the RLTP in attempting to develop learner autonomy (see the results of the study in 5.2. and 5.4.)

In second language learning, the most widely known motivation theory is **Integrative/instrumental motivation**. The theory of integrative/instrumental motivation comes from the work of Gardner and Lambert (1972). This socioeducational model of second language acquisition takes into account cultural beliefs, attitudes and motivation (Gardner, 1985: 147). Integrative motivation is concerned with a positive disposition towards the L2 group and the desire to share activity with or become similar to members of that community. Instrumental motivation implies a practical orientation towards it; students want to gain L2 proficiency in order to get a better job or a higher salary. According to Gardner and Lambert, students who have integrative motivation

can develop their proficiency to a higher level than those who have instrumental motivation. However, because Gardner and Lambert's research was conducted in Canada where French is regarded as a second language (SL), i.e. people need French for social, economic and professional reasons, the learning situation might affect the students' proficiency and their motivation to learn (Oxford and Shearin, 1994: 14; Dornyei, 1990). In the situation where the language is studied as a foreign language (FL), i.e. the students do not have to use it for social and communicative functions within the community where it is learned (Oxford, 1990: 6), there was evidence that instrumental motivation was more relevant as revealed from the study by Dornyei (1994a).

Dornyei (1994a: 275) investigates this integrative and instrumental theory and argues that in FL learning situations integrative motivation might be less relevant because the language is learned in the place where the language is not typically used as a medium of ordinary communication. Dornyei suggests that instrumental motivation and need for achievement are associated with each other. These two factors particularly affect FL learners at intermediate level and above (Dornyei, 1990: 62-69). He believes that instrumental motivation is a central component of L2 motivation where it is relevant, i.e. where short-term pragmatic, utilitarian benefits are available for the learners (Dornyei, 1994b: 520). Therefore, instrumental motivation is strong in young adult learners who are motivated to learn L2 because getting a good job or having a high salary are their motives.

Instrumental motivation is regarded as extrinsic motivation in that it is concerned with getting rewards from a certain performance. In this research study, the author also investigated the change in the students' extrinsic motivation with regard to instrumental use of the language in order to see if it affected the students' behaviour (see 4.2.3.1., 5.3.1. and 5.6.4).

Self-efficacy is a cognitive view of motivation which refers to personal beliefs about one's capabilities to learn or perform at designated levels (Bandura, 1986: 391-392). It is related to developing learner autonomy in that research in achievement setting reveals that students' efficacy beliefs influence achievement behaviours such as choice of tasks, persistence, effort expenditure and skill expenditure. The belief that one is making progress enhances self-efficacy and sustains motivation. However, selfefficacy alone will not produce competent performance when requisite knowledge and skills are lacking. Therefore, the learners should be provided with knowledge and skills as well as helped to enhance self-efficacy. Outcome expectations, or beliefs concerning the probable outcomes of action are important; students tend to engage in activities they believe will result in positive outcomes (Schunk, 1994: 79-80). Self-efficacy is related to learning goals. According to Oxford and Shearin (1994: 21), goals, expectancies, and self-efficacy affect performance because they lead an individual to persist longer at a task and exert more effort, direct attention towards goal-relevant action, stimulate him/her to develop plans for attaining goals and enhance the quality of analytic strategies used. Schunk (1989: 96) states that allowing students to set their learning goals enhances self-efficacy for attaining them. Goals that require a specific performance standard raise efficacy for learning because process towards an explicit goal is easy to gauge. General goals do not enhance motivation; working towards difficult goals can build a strong sense of efficacy. In addition, proximal goals, which are close at hand, result in greater motivation than distant goals (Schunk, 1989: 91).

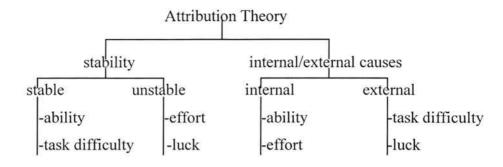
With reference to goals in learning, Dweck (1986) discusses two types of goals that are related to motivation. The first type is learning goals, in which individuals seek to increase their competence, to understand or master something new. The second type is performance goals, in which individuals seek to gain favourable judgements of their competence or avoid negative judgements of their competence. She suggests that in order to develop and enhance productive motivation, the learners need procedures which include challenge and failure in the learning context. Learning success alone is not enough to help the learners develop productive motivational attitudes. What is important is whether the learners are striving after performance goals or learning goals.

In language learning, clear and valued goals are important to help the students to move from their current stage of language proficiency to where they could potentially be (Tharp and Gallimore, 1988: 73). In addition to focusing on the importance of goals, helping the students to move from the distance between the learners' actual development level and the level of potential development which is called the '*Zone of Proximal Development*' (Vygotsky, 1978: 84-91) requires the assistance of the teacher (to be discussed later in 2.3.2.).

In this research study, the author had the students set goals in learning through the use of the learning plans (see 4.2.3.1.) in order to make the learning more meaningful. The results from this research study revealed the effect of the teacher in helping the students to develop learner autonomy, i.e. scaffolding was regarded as important in this process (see 5.3.3. and 6.2.).

Dweck's view of goals and motivation is based on Attribution theory, which is the study of how causal ascription of past failures and successes affect future goal expectancy. According to this theory, a person's attributions for his/her success and failures influence his/her expectations for future success and thereby his/her motivation. Learners generally attribute their successes and failures to one of four categories: their ability, their effort, the difficulty of the task and luck. Ability and effort are regarded as internal causes. Task difficulty and luck are regarded as external causes. With regard to stability, ability and task difficulty are regarded as stable causes whereas effort and luck are regarded as unstable causes. Attribution factors are shown in the following diagram.

Diagram 2.1: Attribution Theory



The ideal motivational event is the one in which learners attribute positive outcomes to stable causes and negative outcomes to unstable causes. Ability is a motivationally appropriate attribution for success experience because it is stable and likely to continue in the future. Effort is also a motivationally appropriate attribution because it is controllable. Therefore, in an attempt to avoid any negative consequences of effort attributions for success, teachers should help learners to recognise the connection between effort and competence. Since the learners require procedures that are concerned with underlying causes of motivation, teaching children to attribute their failures to effort or strategy instead of ability has been shown to produce a lot of changes in persistence in the face of failure (Dweck, 1986: 1043).

Attribution theory is related to learner autonomy in that it provides evidence to show that learners who believe they have control over learning tend to be more successful than others. Thus, the learners who accept responsibility for their success are those who attribute their success to effort. Learning success enhances the learners' self-perception of competence, which leads to enhance a motivation. When the learners are motivated, their possibility of success is also higher (Dickinson, 1995: 171).

Self-confidence is the motivational subsystem which is used to refer to the belief that one has about the ability to produce results, accomplish goals or perform tasks competently. Self-confidence in using the L2 is operationally defined in terms of low anxious affect and high self-perceptions of L2 competence (Clement et al., 1994: 422).

Thus, self-confidence includes language use anxiety which is regarded as an affective aspect and self-evaluation of L2 proficiency which is regarded as a cognitive aspect (Dornyei, 1994a: 277). Self-confidence is regarded as a major motivational subsystem in FL situations (Clement et al., 1994: 441-443).

In this research study, the author used the RLTP to help the students have positive attitudes towards learner autonomy; therefore, having more self-confidence in undertaking an independent learning mode would indicate the students' change of their attitudes. The students' change of their confidence to learn by themselves at the end of the RLTP was measured in order to indicate their positive attitudes towards independent learning.

2.3.1.2.2. Learners' Beliefs

Another area that is taken into account when providing psychological preparation is learners' beliefs about language learning and their beliefs about their role and capability as learners. The former kind of belief reflects the degree of autonomy the learners have as well as the readiness to take responsibility for their learning. The latter kind of belief is central to language attitudes about autonomy as it may affect learners' behaviours. This section provides a background to how learners' beliefs are related to learner autonomy by presenting the research on learners' beliefs. The discussion covers metacognition which is the concept associated with learners' beliefs about their roles and capability as learners and self-regulation. Metacognition is a basis of learners' behaviour that indicates their self-directedness such as using metacognitive knowledge to plan, evaluate and monitor their learning. It is also related to the students' adopting the deep approach to learning (see 2.2.1.). In this research study, the author worked with the students' beliefs about language learning as their beliefs might affect their behaviour (see 3.3.2.). Metacognition was investigated in relation to the students' use of metacognitive strategies to handle English tasks (see 5.3.2.).

Research on Learners' Beliefs

The analysis of the results of the research on learners' beliefs conducted by Cotterall (1995b) suggests the importance of the beliefs which learners hold because they are likely to reflect learners' readiness for autonomy.

Cotterall (1995b) conducted a survey with 139 adult ESL learners enrolling in an intensive English for Academic Purposes (EAP) course to investigate if the learners were ready for autonomy. The questionnaire which was developed from a series of interviews with ESL students was administered to the subjects. The data from factor analysis revealed six factors underlying learners' beliefs: 1) role of the teacher 2) role of feedback 3) learner independence 4) learner confidence in study ability 5) experience of language learning 6) approach to studying.

Learners seemed to present a fairly traditional authoritarian view of the teacher's role and those who subscribed to such a view did not correspond to the profile of autonomous learner. Feedback was seen as related to the role of the teacher. Learner independence was investigated in relation to learners' having clear goals and willingness to try new things. Learners who agreed with the statements asking about learner independence tended to have clearly defined goals and to be comfortable in experimenting with new activities. Learner confidence in study ability implied a belief in the learners' ability to influence the outcome of their learning. Although the statements clustered in this factor could not be associated either with autonomous or dependent approaches to language learning, the literature reveals the relationship between learner confidence and academic success and supports the view that autonomous learners are confident in the learning process. With reference to experience of language learning, those who agreed with the statements on self-assessment were those who had awareness about themselves, about language learning and about strategies; this awareness came from their previous experience of language learning. Although the factor on approach to studying was not specific to language learning and

might not be linked to beliefs underlying autonomy, the results revealed the students' adopting a fairly traditional approach to learning English.

The results of the investigation on students' beliefs in this study indicated some of the learners were ready for learner autonomy in some aspects. Their readiness for learner autonomy was sometimes reflected by their behaviour. For instance, those who were dependent tended to have clearly defined goals. Students' previous experience in language learning also played a part in their readiness for learner autonomy. For example, the students who were ready for self-assessment had an awareness about themselves, about language learning and about strategies. This finding suggests the area that the teacher should work on more in trying to develop learner autonomy such as raising the students' awareness on metacognition.

• The Relationship between Learners' Beliefs and Metacognition

Wenden (1991: 54-55) thinks that learners' beliefs about their role and capability as learners is a form of metacognitive knowledge which is a part of metacognition. It is shaped and maintained in part by other beliefs that they hold about themselves as learners. For example, if the learners believe that people of some personality types are able to learn a language successfully and if they believe they do not have that personality, this belief will influence their attitudes towards their role and capability as language learners.

Evaluations of acceptability and unacceptability of a certain action are intrinsic to the beliefs learners hold about their role and capability as learners. These evaluations affect learners' willingness or unwillingness to take responsibility for their own learning. For example, if the learners who decide to spend more time on practising because the teacher told them that it is important for language learning develop skill as a result, they may become more convinced of the importance of practice and continue to learn in this way; i.e. they have formed a *valued* belief. Wenden believes that a *valued* belief is the heart of a learner attitude towards autonomy; learners will usually have strongly invested in the valued beliefs that are central to their attitudes towards their role and capability as language learners. Wenden's case studies indicated how beliefs affected the priority the learners set, their choice of strategies and their criteria for evaluating their learning. Learners who believed that using the language was essential to succeed in learning emphasised the need to learn to speak, selected practice strategies, and evaluated positively situations which provided an opportunity for oral communication (Wenden, 1987b).

Learners' beliefs are closely related to metacognition, which is the learners' knowledge about their own cognitive processes and ability to have control over their processes by organising, monitoring and making modifications to them as a function of the outcomes of learning (Weinstein and Mayer, 1986: 323). Metacognition is separated into metacognitive knowledge and metacognitive experiences. Metacognitive knowledge refers to what an individual knows about how he thinks and how others think. It is the knowledge and beliefs that one has accumulated through experience. Flavell divides metacognitive knowledge into knowledge about persons, tasks and strategies.

<u>Person knowledge</u> includes knowledge and beliefs concerning what individuals are like as thinkers. It can be subdivided into knowledge and beliefs about cognitive differences within people (e.g. knowing that you are better at one subject than another), between people (e.g. knowledge about other people's social cognitive skills) and cognitive similarities among all people.

<u>**Task knowledge</u>** can be subcategorised into the nature of the information to be addressed when facing a cognitive task and the nature of the task demands.</u>

<u>Strategic knowledge</u> is the knowledge of ways that a person can succeed in achieving cognitive goals.

Flavell believes that metacognitive knowledge is accumulated in a slow and gradual fashion through experiences in various cognitive activities (Flavell, 1976: 906-907).

Metacognitive knowledge influences learners' planning, monitoring and evaluating (Wenden, 1998: 520). Metacognitive knowledge affects learners' planning through task analysis. Task knowledge prompts the learners to do a task analysis to realise what needs to be done to complete the task. Person knowledge enables the learners to recognise what they know and what they don't know. Strategic knowledge helps the learners to select strategies to deal with difficulties. With regard to monitoring, metacognitive knowledge helps the learners to be aware of how well learning is proceeding through internal assessment of comprehension which is recognised from his earlier assessment of the task's demands. Metacognitive knowledge is drawn upon to guide their decision making during the monitoring process (Wenden, 1998: 523-526). In this research study, the findings also indicated how the students used metacognitive knowledge to handle the language tasks (see 5.3.2.).

Metacognitive experience or the cognitive and affective experience that occurs during some activities that gives insight to that activity also affects metacognitive knowledge. Many metacognitive experiences tend to include an individual's perception of previous progress, current progress and the progress an individual will make in the future. They tend to be influenced and shaped by whatever relevant metacognitive knowledge an individual has acquired. In turn, metacognitive experiences contribute information about persons, tasks and strategies to one's developing store of metacognitive knowledge (Flavell, 1976: 907).

Both metacognitive knowledge and metacognitive experience also play an important role in self-assessment, one of the activities important for autonomous learners. Metacognitive processes which involve these two aspects make up an individual's schema for self-assessment. This self-assessment schema works at two levels: in a formative fashion when an individual monitors and modifies the on-going task and in a summative evaluation of the overall task. This summative evaluation can be used to modify his self-assessment schema, which will be used again in the future tasks. However, these cognitive processes are influenced by external and internal influences. External influences come from an academic environment. Goals, curriculum, training, etc. may affect the individual's ability to self-assess. Internal influences such as individual characteristics may affect how the self-assessment schema is employed in a certain task.

In addition, an individual's self-esteem or self-concept, motivation, school achievement, etc. also play a role in influencing the components and formation of this self-assessment schema. Thus, modifying schema such as modifying an individual's previously ineffective self-assessment schema to a more effective schema may improve his self-concept and his self-confidence (internal characteristics) as well as improve his performance at school (external environment) (Cariaga-Lo et al., 1992: 120-121).

Psychological Preparation in Practice

Most of the experiments discussed earlier included some aspects of psychological preparation such as the provision of a counsellor who helped the learners psychologically and methodologically in Little's experiment, a counsellor helped the learners to match their learning style with the learning so that the learners were able to proceed through the independent mode of learning successfully (see pp.56-57). Lum used the activities designed to help the learners to be aware of various learning styles and they were informed that there was no one right style of learning. They were helped to understand the nature and requirement as well as advantages of self-directed learning (Lum, 1996: 118).

Cotterall (1995a) suggested the use of dialogue between teacher and learners to provide psychological preparation. She reported her experience of conducting a twelveweek intensive EAP course for international students at the English Language Institute of the Victoria University of Wellington. The course had five components: 1) learner/teacher dialogue 2) learning a language study theme 3) classroom tasks and materials 4) student record booklet and 5) self-access centre. The dialogue was an interview conducted with the learners at the beginning, mid-point and end of the course in order to establish a personal relationship between teacher and learner, to clarify objectives, to assess and discuss the learners' progress. It was seen as central to fostering autonomy. When the learners started to relate concepts presented in the learning a language study theme to their own language learning, they understood the purposes of the interview and started to gain more experience from discussion with the teacher. The dialogue arose naturally out of classroom tasks and many involved clarifying the purpose of an activity or discussing ways of evaluating performance.

The unit of work on learning a language was presented to the learners in the first week so that the learners were aware of key concepts in language learning. The tasks given to the learners replicated the real world situation that the learners would face and incorporated language support. To help the learners monitor their learning process, each learner received his/her personal booklet which contained a series of self-assessment scales and a place to record personal objectives. The learners could record their activities and progress on the graphs and charts. The self-access centre was used as one of the resources to solve language-related problems and a place where learners could find information on a variety of topics.

In summary, psychological preparation deals with helping the learners to develop positive attitudes towards learner autonomy. Therefore, the teacher has to deal with how to motivate the learners to be confident to accept learner autonomy. The teacher should also deal with other psychological factors that may affect their behaviour as autonomous learners such as how to help the students to attribute their successes and failures to the appropriate cause. Learners' beliefs also play a role in the students' accepting learner autonomy. Therefore, the teacher should help the students to be aware of metacognition so that they would have valued beliefs about themselves and their capability. Support such as counselling and dialogue with the students have been used to as activities to prepare the students psychologically for learner autonomy.

2.3.1.3. Methodological Preparation

Methodological preparation is the process of acquiring the ability and techniques the students need to undertake work in the autonomous learning mode. Learners have to become aware of the learning processes and techniques that they operate implicitly (Dickinson, 1987: 122). With regard to the methodological aspect of learner training, the literature on learner autonomy in language learning covers both cognitive and metacognitive strategies (Dickinson, 1987, 1992; Wenden, 1991).

This section will discuss cognitive strategies in language learning and metacognitive strategies which are essential in helping the students to regulate their learning. The author included training on both cognitive and metacognitive strategies in the RLTP but the emphasis of methodological preparation was on metacognitive strategies (see 3.3.3. and Table 3.1.). Therefore, an example of a practice to provide methodological preparation is presented in relation to the training on metacognitive strategies.

Oxford (1990: 8) defines learning strategies as 'specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situation.' In the language learning situation, learning strategies help learners to participate actively in authentic communication. Thus, these strategies encourage the development of communicative competence. Oxford separates language learning strategies into two classes: direct and indirect strategies. Direct strategies in language learning deal with the language itself in a variety of specific tasks and situations. **Direct strategies** consist of memory strategies for remembering and retrieving new information, cognitive strategies for understanding and producing the language and compensation strategies for using the language although there is some knowledge gap. **Indirect strategies** are those employed for general

management of learning. Indirect strategies consist of metacognitive strategies for coordinating the learning process, affective strategies for regulating emotions and social strategies for learning with others.

2.3.1.3.1. Cognitive Strategies

O'Malley and Chamot (1990: 44) view cognitive strategies as those that operate directly on incoming information, manipulating it in ways that enhance learning. Cognitive strategies are used in learning or problem-solving that require direct analysis, transformation, or synthesis of learning materials (Rubin, 1987: 23). Rubin identifies six cognitive strategies that may contribute directly to language learning: clarification/ verification, guessing/inductive inferencing, deductive reasoning, practice, memorisation and monitoring. Clarification/verification is used when the learners want to clarify their understanding of the new language and this process allows the learners to store information for further use. Guessing/inductive inferencing is used to derive explicit hypotheses about the linguistic form, semantic meaning or speaker's intention by using the previously obtained linguistic or conceptual knowledge. Deductive reasoning is a problem-solving strategy in which the learners look for and use general rules to approach the language learned. Practice deals with strategies such as repetition, rehearsal, experimentation, application of rules, imitation, and attention to detail; strategies that focus on accuracy of usage. Memorisation refers to the strategies used in the storage and retrieval process when the learners want to organise the information. Monitoring refers to strategies in which the learners notice errors, observe how a message is received and interpreted by the addressee, and then decide what to do about it. It is a combination of cognitive and metacognitive strategies; identifying a problem, determining a solution or making a correction are cognitive whereas deciding on the action to be taken or evaluating the action are metacognitive (Rubin, 1987: 23-25).

Much of the research on learner strategies has concentrated on identifying what strategies good language learners use to learn a second or foreign language. In addition to the research conducted by Naiman et al. (1976, see pp. 30-32), Rubin's research was

also focused on the strategies of successful learners so that these strategies would be made available to less successful learners. The results of Rubin's research enabled her to classify strategies in terms of processes that may contribute directly to learning and those that may contribute indirectly to learning. The former strategies were clarification/verification, monitoring, memorisation, guessing/inductive inferencing, deductive reasoning and practice. The latter involved creating opportunity to practise and the use of production tricks (Rubin, 1981).

Oxford (1990: 12-13) suggests that strategy training is more effective when students learn why and when specific strategies are important, how to use these strategies, and how to transfer them to new situations. Thus, the language teacher should help the learners to gain self-awareness of how they learn. Porte (1988: 171) concludes from the results of his study that students tend to use strategies and techniques that have proved personally successful in the past rather than using the new strategies presented by the teacher. Thus, learning strategies can be handled by means of classroom discussion that allows the validation of students' own personal strategies and provides a vehicle for students to share different strategies. He also suggests that if strategies are presented in such a way that learners experience immediate success, they are often more willing to use them. Students should not feel pressured to use a particular technique selected by the teacher, nor should they feel stigmatised or patronised for choosing to use certain techniques rather than others.

2.3.1.3.2. Metacognitive Strategies

Metacognitive strategies are those which are used to 'oversee, regulate or selfdirect language learning (Rubin (1987: 25). O'Malley and Chamot (1990: 230-231) define a metacognitive strategy as 'a learning strategy that involves thinking about or knowledge of the learning process.' These strategies include planning for learning, monitoring learning while it is taking place, or self-evaluation of learning after the task has been completed. Wenden (1991: 25) uses the term self-management strategies to refer to metacognitive strategies whereas Holec (1981: 14-19) refer to them as the skills of self-directed learning. O'Malley and Chamot (1990: 8) think that metacognitive strategies are important because 'students without metacognitive approaches are essentially learners without direction or opportunity to plan their learning, monitor their progress, or review their accomplishments and future learning directions.' Metacognitive strategies are necessary for successful language learning because they help the learners understand what they are doing. They are also necessary for self-instruction as the data revealed from the survey by Fernandez-Toro and Jones (see pp. 36-38). There are three main kinds of metacognitive strategies that Wenden (1991: 25-29) suggests should be included in the learner training programme: planning, monitoring and evaluating.

In **planning**, the learners have to determine what their objectives are and decide on the means by which they wish to achieve them. In other words, the learners have to think about what to learn and why they are learning it in order to formulate the objectives and then think about how, when and where to learn.

Monitoring is the process where the learners become aware of difficulties they encounter in learning. When learners monitor their learning, self-assessment goes on during the act of learning as a part of the monitoring strategy.

Evaluating happens when the learners reflect on the outcome of a particular attempt to learn or use a strategy. They focus on the result and the means by which it was achieved. Evaluation involves three mental steps: learners examining the outcome of an attempt to learn, then accessing the criteria they will use to judge and then applying those criteria.

When the students use metacognitive strategies, i.e. planning, monitoring and evaluating to manage, direct and regulate their learning, they have to use their metacognitive knowledge because metacognitive knowledge provides the knowledge base for planning, monitoring and evaluating (Perkins and Salomon, 1989) Training learners to use metacognitive strategies effectively will help them to become autonomous learners because they can show control of their learning (Wenden, 1995: 188). McDonough (1999: 13) also agrees with this idea as he states that monitoring and self-evaluation strategies contribute to the ability to be an autonomous learner.

Employing metacognitive strategies is a part of self-regulated learning, which is related to the students' adopting the deep approach to learning (see pp. 26-27). Self-regulated learning refers to the degree to which the individuals are metacognitively, motivationally, and behaviourally active participants in their own learning. Metacognitively, self-regulated learners are those who plan, organise, self-instruct, self-monitor, and self-evaluate during the learning process. Motivationally, self-regulated learners perceive themselves as competent, self-efficacious, and autonomous. Behaviourally, self-regulated learners select, structure, and create environments that optimise learning (Zimmerman, 1986: 308). There is some evidence that the self-regulated students are more intrinsically motivated, i.e. they are willing to continue to practice or study in the absence of direct external control by parents and teachers (Zimmerman, 1994: 11). Self-regulated learners are regarded as those who have control of their learning; in other words, they are autonomous learners who are responsible for their own learning.

Therefore, in order to help the students develop learner autonomy, the author included the training on the use of metacognitive strategies in the RLTP; this was an additional aspect expanded from the OLTP (see 3.3.3.).

Wenden (1986: 316-317) discusses three kinds of cognitive and metacognitive strategy training in language learning domain: blind training, informed training and self-control training. In blind training, learners are taught to use cognitive strategies without metacognitive supplement, which is the process of thinking about what they are doing. In informed training, learners are taught specific strategies and they are made aware of

the importance of what they are doing; they are aware of the nature of learning. Metacognitive supplement is limited in this approach as it deals only with monitoring. In self-control learning, learners are trained to use a specific strategy and then to monitor their performance to determine whether the use of the strategy is effective or not. Metacognitive supplement of this approach consists of general skills necessary to regulate learning. However, in order to be able to reflect on their learning, to monitor their progress and to evaluate the outcome of their learning, learners should have a repertoire of cognitive strategies to deal with the task. Wenden (1986: 318) advocates learning strategies in context as this enables the learners to perceive the relevance of the task as well as helping with their comprehension and retention.

In summary, methodological preparation deals with providing tools for the students to handle their learning successfully. The teacher has to cover cognitive strategies relevant to the tasks as well as help the students to think about what they learn through the use of metacognitive strategies. In other words, the students should learn how to learn. Enabling the students to use metacognition in learning can help them to be autonomous in the learning process because they are able to control their learning through planning what to do, monitoring the difficulties and evaluating their performance.

Methodological Preparation in Practice

This section presents an example of the practice in providing methodological preparation. This example was a study conducted to see the results of providing methodological preparation in order to help the learners learn independently. Since metacognitive strategies were regarded as important strategies for autonomy and/or self-instruction, the methodological preparation of some learner training programmes put a definite emphasis on metacognitive strategies.

The study of a self-instruction training was conducted by Fernandez-Toro and Jones (1996). This study aimed at examining the effects of incorporating a deliberate

awareness-raising and training programme for autonomy into a classwork syllabus. The subjects were seven learners studying for an Engineering degree who were taking a Spanish Language module during February to May 1995 in parallel with regular Spanish classes according to their level. The learning programme consisted of three components: 1) a class-based course with objectives, materials and tasks set by a teacher; 2) a project which was a short oral presentation on an engineering project; the project was set up by the teacher while the choice of materials and strategies was left to learners; and 3) a self-instruction training programme aiming at learning to learn by yourself; therefore, the learners were responsible for objectives, materials, strategies and assessment.

The documents used to facilitate the training were a needs analysis questionnaire, a study plan, a learner contract, and a final questionnaire. These documents had double function; as learner preparation tools as well as data gathering tools. The needs analysis questionnaire contained a wide range of choices relevant to individual needs and perceived proficiency. The individual study plan was prepared by the learners who were helped by open-ended questions about their problems and planned strategies. The learners were interviewed every two weeks. While taking the interview, the learner contracts were used as monitoring and motivation building tools. The final questionnaire was used to assess their self-directed learning experience and to reveal their perceived achievement.

The learners' response to the programme was examined with regard to goalsetting, strategy development and evaluation of the self-directed learning experience. With regard to goal-setting, comparison of the original study plan and the final questionnaire showed vague objectives becoming focused as a result of the tutor's guidance, unrealistic objectives becoming achievable, unavailable strategies becoming replaced by available ones. However, one subject showed his rejection of the study training, reporting 'too much' teacher help. The learners were made aware of learning strategies which were used in the self-instruction learning as a result of the survey which the two researchers conducted with learners with experience in self-instruction (see Research on Self-instruction, pp. 36-38) and the learners were encouraged to try new strategies introduced by friends and/or by the tutor. The results of the learners' evaluation of self-instruction training revealed their positive attitudes towards the training. The reasons given for were success in improving grammar and vocabulary, no external pressure to learn at a given pace, confidence building, freedom to choose the content for oral presentation and language learning being a new and pleasant experience.

Fernandez-Toro and Jones concluded that training for autonomy not only yielded positive effect in learners' strategy awareness-raising and development but also in their building of a self-image as an autonomous learner. However, autonomous training was not accepted by all the subjects; this might be because learners were not ready for autonomy, they might already have been fully or partly autonomous, and thus ignored or even resented the training or they might have lacked motivation to learn.

With regard to strategy training, the subjects in the study did not seem to acknowledge the adoption of new strategies presented to them by the tutor; learner- and peer-initiated strategies were more frequently acknowledged. Most often, tutor-initiated strategies were used in addition to learners' own repertoire but they were not explicitly aware of adopting them. Fernandez-Toro and Jones interpreted that this might come from the fact that the taught strategies were regarded as useful if they responded to the learners' needs. Although the new strategies were not perceived as useful enough to be explicitly remembered, some might have been unconsciously adopted and possibly transferred to similar tasks later.

Although the results of this research may not be reliable in that the research was conducted with only seven subjects, the results gave more insight into methodological preparation especially in relation to the need to provide psychological preparation as well as methodological preparation. In their research, Fernandez-Toro and Jones put more emphasis on methodological preparation than psychological preparation which deals with helping the learners to be ready in terms of confidence and willingness to accept learner autonomy. This resulted in some subjects feeling resentment, which might have arisen from the different degrees of autonomy among the learners. The findings seemed to suggest that offering psychological preparation would help to cater for learners' needs and it would avoid giving too much or too little support, which may result in the learners resenting the training.

However, this study gave an idea of how to use study plans to help the students set goals in learning as a part of a self-instruction training programme. The author adopted the idea of the learning plans to help her students practise the use of metacognitive strategies and to be used as a research tool (see 4.2.3.1.).

So far the discussion has shown how learner autonomy can be promoted in the language learning context. Although the focus is on learner training, the discussion seems to imply the important role of the teacher who helps provide the environment, to support the students through the process and to teach and emphasise strategies relevant to the autonomous learners. The following section is a discussion of roles of the teacher which have to change from transmitting knowledge to the students, which is a traditional role, to that of facilitating and managing his/her class in order to support the students' development of learner autonomy.

2.3.2. Roles of the Teacher

Although the learner is central to the development of learner autonomy, this does not mean that the teacher is not important. On the contrary, if the learners are to learn to take responsibility for their own learning, they will need a lot of assistance along the way, especially if their previous experience has been highly teacher-directed. White (1996: 26-29) suggests that autonomous learning represents a fundamental shift in ways of thinking about the roles of teachers and learners. The role of the teacher is to advance the learner's ability and willingness to assume responsibility for his/her learning. Within the classroom, learners have ingrained conceptualisations of their role and of the teaching/ learning process based on their past experiences. Teachers traditionally correct mistakes, identify learning goals for the class and have responsibility for the progress of the class. Therefore, the assumptions of independence, choice and control which underlie autonomy would appear to be in conflict with the roles and responsibilities of teachers and learners. Thus, any attempts to introduce autonomy in the classroom should be based on understanding of the previous cultures of practice of the learners and their beliefs about the roles and responsibilities of teachers and learners.

The idea of scaffolding from the teacher or friends which is suggested by Vygotsky to help the students progress through the *Zone of Proximal Development* is relevant to the process of promoting learner autonomy. According to Vygotsky, the learners have to pass three stages in order to progress through the *Zone of Proximal Development*: 1) assistance from the teacher or more capable classmates or scaffolding, 2) assistance which is provided by themselves such as in self-correction or self-direction and 3) no need of assistance because the language is internalised and automatic (Vygotsky, 1976: 79-91).

The discussion in this section will focus on what has been said about qualities of the teacher, how s/he should conduct the class and how to prepare the teacher to go through the process of helping the learners to develop learner autonomy. The discussion concerning the roles of the teachers will give background to the reasons why the author acted in such a way while delivering the RLTP.

• Desirable Qualities of the Teacher

Breen and Mann (1997: 145-148) believe that to be able to foster learner autonomy, the teacher should hold three essential attributes: 1) self-awareness, 2) belief and trust, and 3) desire. Self-awareness of the teacher's own self as a learner includes a critical sense of him/herself as being able to be an autonomous learner and his/her learning experience so that s/he can reflect on what s/he does in class. The teacher should believe in the learners' capacity to learn and to trust the learners' capacity to assert their own autonomy. Finally, it is important that the teacher wants to foster the development of learner autonomy in the classroom so that s/he is prepared to live through the consequences for his/her own practice from this position.

With regard to classroom action, the teacher has to be a resource, to share decisions on the learning process with the learners, to facilitate collaborative evaluation, to manage the risks arising from the uncertainty of purposes and the challenge of learner dependency, to be a patient opportunist as different learners are at different stages between dependency and interdependency, and to get support from the colleagues when s/he is uncertain whether what s/he is doing is beneficial to language learning. McDevitt (1997: 36) suggests that if learner autonomy is an end-goal of the teaching and learning process, teachers are now required to see themselves as facilitators, consultants, counsellors rather than purveyors of knowledge.

How to Conduct the Class

Dam (1995: 5) suggests the teacher should do the following things in class in helping the students to go through the process of promoting learner autonomy.

- focus on learning rather than teaching;
- be engaged in the learner's learning process;
- be open to learners' ideas and suggestions;
- support learners' initiatives;
- initiate or encourage further activities;
- observe and analyse learning behaviour for later evaluation with learners;
- map out working methods and ways of evaluating progress in collaboration with the learners;
- be a consultant as well as a participant and a co-learner in the learning process.

Cotterall and Crabbe (1992: 12) think that to foster autonomy in a language class, two important elements of the curriculum should be taken into consideration: **classroom tasks** and **teacher talk**. With regard to classroom tasks, they are principled learner activities usually managed by a teacher. Normally, tasks take place in the public domain of learning, i.e. they are shared classroom activities, or in the private domain of

learning, i.e. they are a learner's personal learning activities. Crabbe (1993: 445-451) suggests that the teacher should focus on both of these domains and the interface between them. He explains the six differences between the task dynamics of the public and private domains that the teacher should take into account when assigning the students the **classroom tasks**:

- 1. In the public domain, tasks are largely initiated by the teacher to meet supposed common learning needs. In the private domain they are initiated by the learners to meet specific needs. Normally, when assigning a certain task, the teacher has a particular end in mind, i.e. what s/he wants the learners to do as a 'treatment'. However, in the private domain, the learners start by defining an end and then work out the means to achieve that end. In order to cater for the private domain, the learners need to be sensitive to the thinking behind the initiation of particular tasks.
- In the public domain, language practice is often done with other learners or the teacher. Strategies to achieve private work are not always modelled. In the private domain, practice is either done alone or with interlocutors that need to be sought out.
- 3. In the public domain, tasks that focus on content (fluency tasks) do not always reveal how to deal with language difficulties that arise. In the private domain, the learner's attention is often likely to encounter accuracy problems.
- 4. In the public domain, decisions on how to go about doing a task are often made by someone else such as a teacher or a dominant peer. Thus, it means that there is no individual ownership of the task. In the private domain, decisions need to be made by the individual learner.
- 5. In public-domain activity, the teacher provides feedback on performance even without being asked for it. In the private domain, learners need to seek out specific feedback on specific performance when they think they need it.

6. In the public domain the input texts for tasks are preselected and become an intrinsic part of the task. In the private domain, a learner often needs to work with an unedited text for a learning activity.

In order to link the public domain to the private domain, Crabbe suggests that in classroom discourse about tasks, the teacher should negotiate with the learners about aspects of learning to the point that shared knowledge is established. The classroom negotiation might be about the purposes of the tasks, the nature of difficulties that might be encountered while doing the task and appropriate learning strategies to overcome those difficulties. The discussion and/or negotiation can contribute to metacognitive awareness about learning and it is likely that there will be a transfer of learning about learning from the public domain to the private domain. Task design is also important as it can provide models of learning activity. Crabbe suggests that the tasks that are likely to model independent learning should have transparent performance goals, be easily achieved by the learners who work on their own, and the learners should be able to perceive improved performance in doing the task.

With reference to **teacher talk**, in order to encourage the learners to identify the problems they face, to discuss solutions to these problems and to report on action taken, teachers need to have skills and knowledge to promote that kind of discussion. The skills and knowledge regarded as important are:

1. determining the learner's existing level of autonomy and the appropriate support for the learner. There is no point in spending time convincing learners of the benefits of autonomy; they simply require encouragement and feedback. Also, there is no point in expecting teacher-dependent learners to become autonomous simply by telling them to do so; they require support and a different type of dialogue. Learners who believe that responsibility for their learning lies only with the teacher need to have their conception of learning challenged and the teacher-learner dialogue is an appropriate channel. Autonomous learners basically need encouragement and feedback

from the teacher whereas dependent learners need demonstration of the benefits of autonomy as well as guided experience of autonomous learning before they are prepared to modify their learning behaviour (Cotterall and Crabbe, 1992: 17).

2. maintaining a dialogue with the learner that begins with the learner's view of his or her learning. This can be done in one-to-one dialogue between the teacher and the learner, teacher-learner discourse in the classroom or between two learners. One-to-one dialogue seems to be the most effective approach since the teacher can target the specific learning behaviour of the learner and offer his/her own expertise to solve learning problems. Teacher-learner discourse in the classroom is used to convey important attitudes to develop autonomy. Dialogue between two learners is a potential for learners to learn how to learn from each other.

The purposes of the dialogue reflect the problem-solving skills which learners need to develop in order to become autonomous learners.

The adoption of the ideas about having a balance between public and private domains and maintaining a dialogue with the students will be discussed in activities in the RLTP (see Chapter 3).

• Teacher Preparation

Since teachers have to change their roles in order to foster learner autonomy in class, Dickinson (1987: 121-122) proposes psychological and methodological preparation for teachers as well as for learners especially in the situation where the mode of learning that caters for learner autonomy is adopted without full agreement of all the teachers in an institution or where teachers are new to this concept. Psychological preparation involves three aspects:

- 1. Persuasion that fostering learner autonomy is feasible.
- 2. Changing false assumptions and prejudices that teachers have about learners.

3. Building teachers' confidence to accept that learners are able to take responsibility for their own learning and to adopt teachers' new roles.

Methodological preparation for teachers involves helping them to recognise the necessary changes of role of teachers and to learn the new skills which such role changes demand. Since the teachers have to help the learners to develop learner strategies for self-direction, the teachers themselves have to learn about the methodological preparation required by the learners so that they can help to prepare the learners. They can apply their teaching skills they already possess to the new content (Dickinson, 1987: 124).

To conclude, in order to foster learner autonomy, both the teacher and the students are expected to change their traditional roles. The teacher has to become a facilitator, a counsellor or a consultant rather than transmitting knowledge in class in order to support the students to go through the process of developing learner autonomy. The students are expected to take responsibility for their own learning and get involved in the activities which were normally done by the teacher, e.g. setting up learning objectives, making decisions in doing the tasks, assessing their performance, etc. The teacher should be careful in designing the tasks that cater for both individual work and group work in order to achieve a balance between the private and public domains of learning. Support through dialogue with the students, encouragement and feedback are seen as important for developing learner autonomy. Therefore, it is not only the students that need psychological and methodological preparation, the teachers also need to this preparation in order to help the students to develop learner autonomy

2.4. Summary

This chapter provides a selective review of the conceptualisation of learner autonomy and how it has been fostered in education, especially in the field of language learning. It also discusses the means to reach learner autonomy, how the concept has been put into practice in different learning contexts and the results from experiments and/or research on fostering learner autonomy. A common theme in the literature on the area of learner autonomy is that promoting learner autonomy aims at helping the students to learn effectively. The means to reach learner autonomy in language learning is by providing a learner training programme. A learner training programme conducted involves three elements: 1) providing an environment to promote learner autonomy; 2) providing psychological preparation and 3) providing methodological preparation. The environment suitable for developing learner autonomy is the classroom that encourages self-determination and/or the self-access facilities which cater for the independent learning mode. Psychological preparation involves changing learners' attitudes and working with their beliefs about learning a language and their self-concept as language learners. Methodological preparation deals with the training of cognitive and metacognitive strategies. The roles and responsibilities of the teacher are also discussed since the teacher is an important factor in the development of learner autonomy.

How the ideas from the theory and practice of developing learner autonomy were adopted in this research study will be seen from the design of the RLTP in Chapter 3.

Chapter 3 The Development of the RLTP

Introduction

This chapter discusses how the author revised the learner training programme to make it more effective. The revised learner training programme (RLTP) was the main tool to help the students develop learner autonomy. The discussion covers how the RLTP was conceptualised by relating the ideas to the literature reviewed in Chapter 2, the elements and the weaknesses of the original learner training programme (OLTP), the elements of the RLTP that were improved or added in order to make the training programme more systematic. The table provided at the end of the chapter shows the comparison of the OLTP and the RLTP. The comparison was done by looking at activities in the OLTP and the RLTP, their objectives, how they were implemented, weaknesses, justification for improvement and/or for using the activities.

3.1. Conceptualisation of the RLTP

The review of the literature in Chapter 2 shows that the concept of learner autonomy is broad. In this research study, the author regards learner autonomy as the learners' **ability**, as well as their **willingness and confidence**, to take responsibility for their own learning because an individual's degree of autonomy depends on many factors including his or her motivation to do the task in the relevant context. The author believes that both cognitive and affective factors play an important role in learning. Autonomous learners should be able and be willing to participate actively in learning, to make choices and to evaluate their learning. Therefore, being autonomous learners requires knowledge and skills as well as motivation and confidence to take charge of their learning. Having only desirable attitudes but no skills does not help the learners to become autonomous. Also, the students may know how to take charge of their learning but may not be willing to do so. Thus, the attitudes towards learner autonomy and the ability to be an autonomous learner should go hand in hand. Developing learner autonomy means providing the mode of learning which enables the students to actively participate in their learning process individually and co-operatively.

In order to improve the original learner training programme to make it more effective the author applied the ideas from the literature to revise the learner training programme as follows:

- providing the atmosphere where the learners experience autonomy. Choices were given at different stages of learning, i.e. the choice of tasks, criteria of assessing each task and so on so that the students would be more involved in the decision-making process and feel that they had self-determination in their learning.
- the self-access centre or the SALL was integrated into classwork more so that the students had the chance to work in an independent learning mode under the supervision of the teacher/author. This would help them to be more confident to work on their own as there was a guideline for them to engage in independent learning in the SALL. It was hoped that in addition to the orientation of using the SALL, this hands-on experience would help the students to see the benefits of the SALL and to be confident to use it voluntarily.
- the author had an on-going informal discussion with individual students about their problems in learning and in doing out-of-class activities so that the students who had problems were able to ask questions. As the teacher was regarded as an expert in language learning, this session would be helpful to discuss her language learning experience with the students.

- metacognitive strategies were focused in the methodological preparation as they are important for self-directed learning and for university study (see 2.2.1. and 2.3.1.3.2.).
- the students' use of cognitive strategies and metacognitive strategies were made explicit through an awareness-raising process so that the students were aware of the effectiveness of their own strategies and were able to learn from other students' strategies.
- the students were guided to be reflective on their performance, i.e. the accuracy of the language use and the process of working, during the feedback session. It was hoped that such training enabled the students to engage in self-correction and peer-assessment successfully and meaningfully as required by the course.

In summary, the RLTP concentrated on the three key elements of learner training: providing an environment both in class and in the SAC that catered for self-determination, psychological preparation to change learners' attitudes towards taking responsibility for their own learning and methodological preparation. Since the author also acted as a teacher in this research study, it was not necessary to provide preparation for the change of her role. What was her main concern was creating the class atmosphere where the students were not intimidated to negotiate, discuss and show their opinions. The author had to try to involve the learners in the learning process, be sensitive and be flexible to what was going on in class rather than focusing on the lesson plans only. Developing learner autonomy is an on-going process and it cannot be done only by the teacher's telling the learners to be autonomous (Little, 1991: 45). Since there is no fixed formula for developing learner autonomy as autonomy is something happening inside the learners, the author had to keep the goal of developing learner autonomy in mind when teaching so that she was able to inject the concepts of learner

autonomy and provide every possible opportunity for the students to exercise their autonomy.

3.2. The Original Learner Training Programme (OLTP)

This section describes the OLTP by discussing the two main elements of learner training used in the OLTP, how they were delivered, and weaknesses of the OLTP. The project and the use of self-access centre were requirements of the course which the author had to observe, especially since the project which affected the students' final grades. Although the author had to observe the requirements of the course, she had some freedom to modify them as seen in Table 3.1.

3.2.1. Elements of Learner Training in the OLTP

The OLTP has been implemented since 1989 (KMITT Bulletin, 1989). It aims at providing an opportunity for students to make decisions in the learning process and giving choices to students. The department designed two activities where these two elements could be implemented:

1.Project. The content of LNG 101 emphasises doing tasks because the task at the end of every unit demonstrates whether the students are able to use the content and language knowledge learned throughout the unit to complete the task (see 1.4.). The students have to use their existing knowledge to complete the task; this process makes the learning more meaningful to them. Since the students are familiar with doing tasks, the Department designed a major task which the students had to find information to complete. The task was done in groups. This task was called 'the project' and it accounted for 15% of the total assessment score of LNG 101. The project aimed at giving formative assessment of the students instead of relying upon the mid-term and the final examinations in order to evaluate the students' performance in the English class. In addition, the students had the chance to participate in the evaluation process which formerly had been done solely by the teacher. The project also provided freedom in learning to the students because they had the chance to make decisions on: which topic

to work on; who to work with; where to find the information; and how to present the information both orally and in written form. The content of the project was semitechnical in that it had to be related to areas in science and technology but students did not have to use technical terms to write their project.

The written work was evaluated by the teacher of the group and another teacher who read the written work of every group. The evaluation criteria were as follows:

- 1. using language that was relevant, concise and easy to understand;
- 2. having a sequence of content which covered introduction, main idea, details and conclusion;
- 3. using clear and suitable visual aids such as pictures, tables or diagrams;
- 4. showing neat and attractive presentation; and
- 5. giving a suitable and correct form of references.

The time allocated for the project was two months. The students had to submit their topics and outlines to the teacher before starting the project and then submit the first draft for correction which was done by self-correction under the guidance of the teacher. The teacher would read and correct the students' work by using symbols which were used with every group; the meaning of the symbols were shown to the students before this process was used. The written work accounted for 7.5% of the total scores of the project.

The other 7.5% came from oral presentation of the written work where the students were evaluated by the teacher and their friends; this gave the opportunity for the students to participate in the evaluation process. The criteria used to evaluate the oral presentation were:

- 1. interesting content;
- 2. staging of the presentation to include introduction, detailed content and conclusion;
- 3. a practical idea that could be applied to real life or study;
- 4. appropriate use of the language;
- 5. being clear and comprehensible to the audience;
- 6. clear and appropriate visual aids;
- 7. good co-operation from other group members if the speaker had difficulty;
- 8. answering questions well;
- 9. personality and confidence in doing the presentation;

10. creativity in presenting; and

11. appropriate timing.

The criteria did not require too much language competence from the students and the assessment was carried out in groups. Therefore, the students were confident enough to participate in the process. However, the author thinks that allowing the students to take part in the evaluation process suggests a political agenda of learner autonomy which involves empowering learners; however, the students did not have to think and discuss much while evaluating their friends' work so their empowerment was perhaps rather superficial.

2. The use of SALL, the self-access centre which was set up to promote

independent learning. The SALL provided equipment and materials in English language which were prepared for the students to practise with and get feedback on their own by looking at the keys and explanation provided in the SALL. It also provided a support system that could facilitate independent learning such as needs analysis questionnaires, record sheets, and so on. All the first year students would be introduced to the SALL in their first week of study so that they knew about the available resources which they could use to improve their English. The use of the SALL was emphasised by the teachers when the students had to do the project because not only was it a useful resource but it was also hoped that the students would use the SALL more frequently when they knew about it. It was expected that independent learning in the SALL could help to develop learner autonomy in the students.

In summary, it can be said that the OLTP was an attempt to provide learner training to the students through psychological preparation and methodological preparation. With regard to psychological preparation, the teachers involved the students in the learning process through choices provided in the project and through peer-assessment of the project. They were exposed to independent learning through the use of the SALL which was done on a voluntary basis. Most of the students used the SALL more as a resource for the project. However, the use in that respect only familiarised the students with the SALL; we were not certain that the students would see the benefits of the independent learning mode provided by the SALL. As for methodological preparation in the OLTP, introducing the project to the course implied the emphasis of metacognitive strategies as the process of doing the project required the learners to use these strategies. However, the training on how to use metacognitive strategies was not explicit as the teachers appeared to assume that the students had already acquired these strategies.

3.2.2. Weaknesses of the OLTP

Based on personal experience in teaching LNG 101 and on informal discussion with colleagues on how they conducted their teaching, which was confirmed by the data from teacher interviews conducted during the fieldwork (see 4.2.3.1.), the author saw that the OLTP had weaknesses which arose from how the teachers conducted the activities aiming at developing learner autonomy as follows:

1. Most of the students had not been sufficiently trained how to work independently before. Only those that had experience in learning by themselves and those who were motivated to learn English came to use the SALL. However, from observation while supervising the SALL, the author saw the students often used the SALL to entertain themselves by watching feature films. They did not have any specific learning objectives, nor were they trained to formulate them so they focused on using the SALL for entertainment.

2. No preparation was given in decision making. This was seen from the way choices in learning was provided in a limited manner such as having the students choose only the topics of the tasks listed by the teachers. The choices were superficial because they were predetermined by the teachers. More meaningful choices such as those provided in the project, e.g. choice of their topic and how to do the project, came late i.e. almost at the end of the course.

3. When doing the project, some students might have felt unprepared for working without help from the teacher and this could possibly have led to frustration and lack of success rather than encouraging students' involvement in learning; the author had observed her class and the outcomes of the project when she had been teaching LNG 101 before conducting this research study. There were many aspects where the teacher left the students to work on their own assuming that the students liked the freedom given such as choosing and managing time to complete the project, self-correction of the written work and peer-assessment of the oral presentation. However, there were no worksheets that helped the students with the learning process or other aspects that facilitated students' development of learner autonomy. Therefore, it seemed that the students had to go through the training with insufficient guidance.

4. Corroborative evidence on the weakness of the OLTP resulted from research conducted by Watson Todd (1996). This research examined whether teachers who taught LNG 101 enhanced learner autonomy in the classroom as well as in self-access learning; in this context learner autonomy referred to learning independently in the SALL. Watson Todd investigated six teachers who had previous experience of teaching LNG 101 by recording their teaching over the first two weeks of the semester. Watson Todd suggested that learner autonomy might be manifested in the classroom through the change in the power relationship between teacher and learners. He investigated power distribution in the classroom by looking at teacher's talking time, topic initiation, patterns of communication, openness of questions and tasks and teacher language. The results of the research indicated that different teachers distributed power unevenly. Generally, the teachers dominated the talking and initiated content. They controlled patterns of communication and dictated the input given by students. The language used in instructions and the closed nature of the task limited the students' choice and freedom to decide about their learning. Statements such as 'You have to be able to learn by yourself. You have to be responsible for your own learning', which were expressed by the teachers in class reflected the contradiction of teachers 'anti-autonomously' forcing students towards learner autonomy.

With regard to preparation for self-access learning which was seen as an important step to help students work successfully in the SALL, Watson Todd investigated how the teachers prepared the students for self-access learning by analysing topics covered in the introduction to the SALL. The results suggested that the students were underprepared for self-access learning since the teachers did not cover requisite skills, knowledge and strategies and the instruments used in self-access learning.

The evidence from Watson Todd's research supported the author's impression that teachers' behaviour played a part in developing students' autonomy. The way they tried to force autonomy to happen verbally but conducted the class in a teacher-centred manner indicated a weakness in the OLTP.

From the weaknesses described above and from the observation of the author, she had the impression that only the students who were already motivated and knew how to work independently developed some level of autonomy when taking LNG 101. Those who had never encountered working in this way, i.e. a situation that required them to make decisions in their learning, might not be motivated to work on their own or have the knowledge to work in such a way.

Having seen the weaknesses in the current situation and the OLTP, the author developed a more systematic learner training programme to be integrated into LNG 101 but still keeping the main elements of the OLTP, i.e. the project and the use of the SALL because they were also requirements of the course. The revised learner training programme (RLTP) aimed at giving more systematic psychological and methodological preparation to the students so that they would be ready to accept a higher degree of learner autonomy and know how to exercise it. However, the degree of learner autonomy that the students would develop to a certain extent depended upon the background of students (see 5.1.). Since the students came from different schools, and the standards of secondary schools in Thailand varies, some students might already had previously experienced the type of educational environment where they could exercise learner autonomy. For those students, the degree of development of learner autonomy at the end of the RLTP might not be as much as those who had experienced less autonomy in their previous educational environment.

3.3. The Revised Learner Training Programme (RLTP)

Since the learner training programme would be integrated into the compulsory course, the author had to follow the requirements of the department. However, several elements were added in order to make the revised learner training programme more systematic and more effective to develop learner autonomy. This section discusses how the RLTP was developed by considering the constraints of the situation, the content of psychological and methodological preparation and the documentary support of the RLTP.

3.3.1. Constraints

The main constraint in revising the learner training programme came from the predetermined syllabus and materials, i.e. one of the objectives of LNG 101 was to enable students to communicate on semi-technical topics by using the four skills; namely, listening, speaking, reading and writing. The materials were six units taken from *Interface* (see Appendix A) and the students had to take the midterm and final exams based on language points they had learned. As a teacher, the author's first priority was to try to teach the content required for the exams. At the same time, she had to conduct the learner training which contained some activities that were regarded as additional to the main content of the course such as having students discuss why they could not fulfil the objectives set in their learning plan (see 4.2.3.1.). Therefore, the time allocated for the learner training was not enough; some activities were conducted less frequently than they had been planned (see 4.2.3.1. and 6.3.). This might have affected the effectiveness of the RLTP.

3.3.2. Psychological Preparation

The problems from the OLTP regarding psychological preparation came from insufficient preparation of the students to accept responsibility for their learning, e.g. making decisions, self-correction, peer-assessment, as well as working independently in the SALL. Therefore, the author tried to solve this problem by these modifications:

- involving the students in the decision-making process more. Instead of waiting until the students started the project, the author provided choices for the students in the final task of each unit. The choices were given in terms of the title of the task, how to do the task and how they wanted their tasks to be assessed such as by giving overall comments to the task or by correcting all the grammatical mistakes, etc. When the students did the project, the author tried not to interfere with their decision-making process. She focused on the students' judgements regarding the title and content of the project; the author acted as a consultant rather than as assessor.
- enabling the students to be confident to do self-correction and peerassessment by providing a plenary feedback on grammatical points and asking the students to detect the mistakes and correct them. Peer-assessment was conducted in classroom exercises which the students were able to handle because the answers were obvious.
- enabling the students to have self-confidence to engage in independent learning by providing hands-on experience in the SALL with guidance from the author. The author took the students to work in the SALL but provided guidelines and discussed the purposes of the activity with them before allowing them to explore and work in the SALL. This activity aimed at familiarising the students with an independent learning mode and at enhancing their self-confidence to work on their own. They were able to get help from the author anytime as the author was present in the SALL.

- providing resources such as monolingual and bilingual dictionaries in class when the students did the final task so that the students learned to seek help from other sources rather than depending on the teacher all the time. The author tried to present her new role as a consultant by encouraging the students to go to the SALL to find more information about language use or to use the dictionaries provided in class. However, they could always come to the author if they were not certain.

As well as the modifications discussed above, the author added new elements into the RLTP as follows:

- working with students' beliefs about language learning as it affected their behaviour. The author asked the students to write down their beliefs about language learning in order to help the students to investigate their beliefs at the beginning of the course. At a later stage in the course after they were exposed to new experiences in learning a language, the students were asked to look at their beliefs at the beginning of the course to see if they still held the same beliefs.
- having an on-going informal discussion with individual students about their problems in learning and in doing the outside class activities. It was regarded as an individual trouble-shooting session. The session enabled the author to share her own experience as a language learner with the students when they asked for suggestions of how to practise a certain language skill. This was regarded as a dialogue between the teacher and the learners which was important for the process of developing learner autonomy (see 2.3.2.).
- keeping balance between public domain and private domain as suggested by Crabbe (see 2.3.2.) by having the students do the final tasks sometimes individually and sometimes in groups. The final tasks of the unit were

considered important in that they were designed for the students to use the knowledge learned throughout the unit as well as their existing knowledge to complete them. Most of the teachers normally treated the final tasks as group work tasks. When doing a group work task, the students had to choose the strategies that worked best for the groups to finish the task in time; the students might learn new strategies from their friends during negotiation to do the task. In doing individual tasks, the students knew if the strategies they chose were effective and if they had problems in using the language. Although working in groups might be able to provide psychological support to the students when they felt frustrated from dealing with the tasks in LNG 101 which emphasised the productive skills, writing or speaking, they would not be independent if they worked in groups all the time. Therefore, the researcher thought that the tasks should be handled both individually and in groups in order to help the students to be aware of their problems and/or their learning as well as learning from friends.

In summary, psychological preparation in the RLTP was an attempt to help the students develop positive attitudes to learner autonomy by providing them with hands-on experience in independent learning. The students would be able to discover the experience of being autonomous in learning. This experience would help them to be more confident in taking responsibility for their own learning. To provide psychological preparation, the author provided a classroom environment where the students had more control over their learning or could feel more self-determining, helped students to feel that they were competent to learn on their own and helped the students to develop the knowledge about learning and themselves with respect to learning. It can be said that psychological preparation provided the students with an opportunity to practise autonomy under teacher supervision. The process of psychological preparation implies that the teacher is an important factor in a learning environment; as Little (1975: 260) says 'there is no escape from the paradox of leadership- the requirement that men should be led to freedom, that students be taught the autonomous style.' Boud (1988:

29) also agrees with this idea as he said that although the educational goal is independence, there is an unavoidable dependence on authorities for information and guidance. The teacher is needed to provide scaffolding for the students before they are able to self-direct their learning (see 2.3.2.).

3.3.3. Methodological Preparation

Methodological preparation means providing tools which the learners can use to work on their own and so normally deals with training in cognitive and metacognitive strategies (see 2.3.1.3.). Research in the literature reveals that metacognitive strategies are important strategies for autonomous learners (see 2.2.2. and 2.3.1.3.2.). However, the weaknesses of the OLTP indicated that explicit training on the use of metacognitive strategies was not provided. Instead, the teachers assumed that all the students had acquired these strategies and expected the students to use metacognitive strategies when doing the project. Those knowing how to use metacognitive strategies had no problem but those who did know how to use them did not really learn metacognitive strategies from doing the project. Therefore, to provide methodological preparation, the author focused on how to use metacognitive strategies more than cognitive strategies. However, cognitive strategies were also covered by raising students' awareness of the cognitive strategies they chose to complete the tasks and teaching strategies relevant to unfamiliar tasks such as listening tasks. Methodological preparation involved the following aspects:

- helping the students to be aware of their use of metacognitive strategies. The training was conducted when the students carried out the final task of the unit. The students were asked to analyse the process they went through in order to complete a certain task (see 4.2.3.1.: A Checklist of Strategies the Students Used to Handle Language Tasks and Worksheets on Planning, Monitoring and Evaluating). The questions asked concerning metacognitive strategies, namely, planning, monitoring and evaluating, would help the

students to be conscious of metacognitive strategies they employed in the language task.

- having the students practise using metacognitive strategies through planning their learning (see 4.2.3.1.: Learning Plan). When doing the learning plan, the students had to formulate learning objectives, monitor the learning plans by keeping track of activities that they decided to carry out in order to reach the objectives as well as identify problems arising during their process, and evaluate their learning plans by checking whether they had reached the objectives and how much they had achieved the objectives. The learning plan not only helped the students to practise using metacognitive strategies, it also provided choices for the students regarding learning objectives that they wanted to achieve in addition to the objectives predetermined by the syllabus.
- helping the learners to be aware of their use of cognitive strategies. This was done by a) providing a checklist at the end of some tasks, e.g. writing or listening in the lab, for the students to think back to their strategies used to complete the task and b) discussing cognitive strategies which the students employed in plenary whenever there was time available.
- teaching cognitive strategies that were considered effective for unfamiliar tasks such as listening tasks before the students performed the task in order to expand the students' repertoire of cognitive strategies. Then the author encouraged the students to try the new strategies to see if they worked for them.

3.3.4. Support for the Training

In order to provide a more systematic and explicit learner training, the author used the following documents to facilitate the learner training process: (see 4.2.3.1. and Appendices A and B).

- 1. Learning plan. It was used to facilitate the training of using metacognitive strategies. The students had to state in Thai their learning objectives, how to reach the objectives in terms of activities and time allocated for the activities, materials used with the activities and criteria to see if learning objectives were achieved (see 4.2.3.1. and Appendix B).
- 2. Worksheets on planning, monitoring and evaluating. They were used to help the students to be aware of metacognitive strategies they employed when doing the final tasks (see 4.2.3.1. and Appendix B).
- 3. Checklist of strategies the students used to handle language tasks. It was used to help the learners analyse their use of cognitive and metacognitive strategies (see 4.2.3.1. and Appendix B).
- 4. A proforma asking the students' opinions about learning English. It was used to help the students analyse their beliefs about learning English as their beliefs play an important role in the development of learner autonomy (see 2.3.1.2.2.). The students were asked to fill in the proforma in Thai in their first class of studying LNG 101 so that they had the chance to reflect on their experience in learning English and what it meant to them. The proforma was kept in the file so that the students were able to look at it when they formulated and revised their learning plan (see 4.2.3.1.). It was thought that the students might change their beliefs after being exposed to different ways of learning English (see Appendix A).
- 5. Self-study worksheet. It was used to facilitate the students' independent learning in the SALL. The students had to answer the questions which guided them through the process of learning independently in the SALL in Thai. The self-study worksheet was aimed at guiding the students to work independently in the SALL and helping them to be conscious of the process they went through while working in the SALL (see Appendix A).
- 6. Worksheet to help the students work systematically with the project. When the students started to do the project work, the author asked each group

to fill in the worksheet containing project title, scope of work, outlines and references in order to help them plan the project work (see Appendix A).

7. Worksheet describing the process of completing the project. The worksheet was used to help the students monitor their performance. Each student had to fill in the worksheet which contained the questions on what task the student was delegated to do, how s/he did it, how much time s/he spent on it, problems arising and how to solve them (see Appendix A).

In addition to facilitate the learner training process through guiding and making the process explicit and systematic, the first three documents were also used as research instruments to reveal the students' performance and development.

These documents were kept in the students' files which also contained their work done in class so that the students could look at their performance, outcomes of the tasks and their beliefs about learning English. The files were kept in a cabinet in the SALL because it was easy for the students to access them so that the students could put the work they did outside class in the file when it was convenient for them. It was hoped that keeping all the documents and the students' work in the file could facilitate the students' self-analysis when they had to revise their learning plan (see 4.2.3.1.: Learning Plan).

3.3.5. Comparison between the OLTP and the RLTP

The table below compares the OLTP with the RLTP. The information about the OLTP came from the author's observation when teaching LNG 101 before conducting the study, and from interviews with colleagues who had experience in teaching and knew about learner autonomy; these teachers taught at the same time as the author when she conducted the fieldwork (see 4.2.3.1.: Teacher Interviews). The weaknesses the author had analysed before revising the RLTP were still apparent but there was a variation, i.e. the way the teachers handled the activities. This was revealed from the teacher interviews. The comparison was done with respect to the activities the teachers

were asked about in the teacher interviews; these activities indicated how learner autonomy was provided. In fact, promoting learner autonomy is not done only through classroom activities; other aspects of teaching such as classroom interaction between the teachers and the students, teacher talk which reflects their attitudes towards learner autonomy and how the teachers conduct the class also affect the development of learner autonomy. However, those aspects were not able to be compared because the author did not observe every teacher's class.

The comparison in Table 3.1 is done by analysing the activities which indicated either psychological or methodological preparation. Table 3.1 is divided into psychological preparation and methodological preparation. The first table is concerned with psychological preparation. The author compares the activities used in the OLTP and those used in the RLTP in terms of objectives, implementation and weaknesses of the activities used in the OLTP. In the teacher interviews, the teachers talked about how and why they handled the activities. That information indicated the objectives and the implementation of the activities. An analysis of the weaknesses of the activities in the RLTP was done by looking at the effect of how the activities were handled on developing learner autonomy; not all of the activities had weaknesses. Justification for implementing the activities used in the RLTP is also presented in relation to how it might help promote learner autonomy. The second table is concerned with methodological preparation. The comparison between the OLTP and the RLTP is presented similarly. The RLTP was conducted for four months and the activities in the table were an integral part of the teaching and learning process.

Psychological Preparation	рттр
ULIF	KLIY
1.Choices of task	1.Choices of task
Objectives: to give variety to the activity so that the task would be motivating. Implementation: choices were given in terms of different topics of which the	Objectives: to give a chance for the students to make decisions in their learning so that they would have more responsibility for the task.
students could choose one from the list.	Implementation: the author gave more open choices such as a general topic
Weaknesses: choices were given in a limited and superficial manner; only in	in which the students were able to choose the area they were interested in to
topics listed by the teachers. The students did not have to make much decision	work on instead of choosing from the listed topics.
in learning.	Justification: general topic gave more freedom for the students to choose the
	area they wanted to do for the task. The students would feel more responsible
	for the task because they chose it themselves. This activity also helped the
	students to become self-directed in the learning context because the students
	had a chance to make decisions on the topic, the content and the language use.
	2. Decision-making on assessment criteria
	traditionally done by the teacher
	Implementation: before the author corrected the final task, in plenary
	session, she would ask the students to think about the criteria they wanted the
	author to focus on and then told the author. Consensus on the criteria had to
	be reached before the author corrected the work.
	Justification: the students were able to experience learner autonomy through
	involving in the decision-making process.
3.Decision-making on the project work	3.Decision-making on the project work
Objectives: to enhance learner-centredness and independence from teacher	Objectives: to promote decision-making in the context where the students
Implementation: the students made decisions on the project topic, the content,	were less controlled by the teacher.
who to work with, where to find the information and how to present the	Implementation: the students made decisions on the project topic, the
information. To give guidance, the teachers asked the students to submit the	content, who to work with, where to find the information and how to present
project topic as well as the information they would use in the project so that	the information. However, the nature of guidance was different from the
they could approve if it was possible or not. The teachers discussed how well	OLTP. The author asked the students to present the project topic and the
the information fitted the topic. If they foresaw problems, they would suggest	outline for approval. The author discussed the scope of work and the
possibilities for the language focus as well as how to find the information.	language focus the students suggested. The author did not speculate if the
Some teachers made suggestions about how to present the project work orally.	students were able to do the project successfully or not. She emphasised both
The process of middane characterize control of the	process and product or doning the project work, i.e. now the students sorved the
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Table 3.1: A Comparison between the OLTP and the RLTP

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decision-making process.	whether the information was relevant or not depended on the students' opinions. However, the students could consult the author whenever they
	wanted to.
	Justification: teacher's not having too much control of the decision-making
	process could encourage the development of learner autonomy.
4.Group work to do the final task	4. Individual work and group work to do the final task
Objectives: to promote co-operative learning which also help the learners to	Objectives: the balance between individual and group work tasks helped the
learn to work with others.	students to learn how to work with others as well as to know their own
Implementation: normally, the teachers had the students work in groups when	weaknesses when they did the task individually.
doing the final task, which was a means to demonstrate whether they could	Implementation: instead of having the students work in groups for every
apply the knowledge learned throughout the unit. The students learned to	final task, the author had them do some of the final tasks individually. The
negotiate with their friends and the process of doing the task gave an	individual work enabled the students to see their improvement as well as their
opportunity for the students to work independently to some degree from the	weaknesses. Only in the open tasks that needed decision-making and
	megonation annong group memoris and the aution asy the statemes to more m
own problems because it required the students to apply the knowledge learned	Justification: working individually encouraged independence and focused on
in the unit and their existing knowledge to complete it. Focusing only on group	private domain because the students had to think about the content and the
work overlooked strategies and problems that might occur to individual	language themselves. The feedback from the teacher on the students' work
students.	helped them know their own weaknesses. However, group work also is
	interdependence which is essential component of autonomy in action (Boud,
	1988: 28-29). The students had to learn to work with and help each other.
	Independence is the stage that comes before interdependence. Therefore, it
	was necessary to help the students to develop understanding of their own self
	before working successfully with the others. Working in groups also gave
	psychological support to the students who might be trustrated from working with the tasks which they were not familiar with.
5.The use of SALL	5. The use of SALL
Objectives: to encourage the students to engage in independent study.	Objectives: to provide hands-on experience of working independently in the
Implementation: the teachers gave orientation to the students at the beginning	resource provided for language learning.
or the course, some recommended the ress and students to use the state in order to improve their English. The teachers suggested the SALL as a place the	help the learners develop their autonomy in language learning, the author tried
students could go to when they wanted to find information about their project	to integrate the use of it as a part of the RLTP. The author gave orientation to
work.	the students at the beginning of the course. Then she took the students to
Weaknesses: only telling the students what they could do in the SALL or	work in the SALL so that the students were able to experience working
encouraging them to use the SALL might not be convincing enough because many students had no experience of working independently in a resource like	students the objectives of the activities and provided guidelines so that they

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beliefs about English language learning together with their work, their	
themselves more fully. The information they provided came from their	
preferences of learning English in Thai so that they were able to express	
their opinions about English language learning, their expectation, and their	
learning environment, the author distributed a proforma asking them to fill in	
Implementation: in the first lesson when the students were new to the	
learning.	
Objectives: to help the students change their attitudes towards language	1 1
7 Changing oninions/haliafe about learning English	
author for help.	
information they looked up in the dictionaries, they could always come to the	
problems. However, they knew that if they were not certain about the	
teacher because the students could use them when they had linguistic	
Providing dictionaries in class helped to encourage independence from the	
Justification: generally, teacher is the main linguistic source in class.	
when they wanted to find appropriate vocabulary while doing the tasks.	
allowing the students to go to the SALL to use the dictionaries in the SALL	
bilingual dictionaries, in class when the students did the tasks as well as	
Implementation: the author provided dictionaries, both monolingual and	
Objectives: to encourage the students to seek help from other resources.	class.
6.Providing dictionaries in class	From the observation, the author saw very few teachers provided dictionaries in
independently to know how to undertake independent learning.	
in the SALL helped the students who might not be confident to work	
SALL was not enough. Giving guidelines to the students when they worked	
expecting them to develop learner autonomy through the process of using the	
working independently in the SALL. Only telling them to use it and	
independent learning in the SALL, the students would be familiar with	
Justification: providing successful and meaningful hands-on experience in	
them through these activities.	
extra information for their task. The students knew what the SALL offered to	
final task, the students had a choice to work in the SALL if they needed to get	
wanted to find information about their project. Moreover, while doing the	
the author suggested the SALL as a place the students could go to when they	
problems they encountered and how to solve them. In addition to this activity,	
a worksheet that required them to fill in their choice of task, its details, the	experience of using the SALL for independent learning.
would have successful experience of independent learning. The guideline was	that. It would be better to help the students discover by themselves the

learning plans and his/her outside class activities concerning English language improvement. Justification: in a classroom context, the teacher is regarded as an expert in English language learning. Therefore, discussing privately with the author provided an opportunity for some students to ask about what they could do in order to improve language skills. This activity was able to help those who did not like to discuss in plenary discussion to be more relaxed to talk about their problems. This activity also promoted the dialogue between the author and the students which is important for the process of developing learner autonomy (Cotterall and Crabbe, 1992: 17).	κ
	There may have been informal discussion about problems of studying LNG 101 but there was not a scheduled individual session.
learning plans and their worksheets on planning, monitoring and evaluating were kept in the students' personal files. After the learning had proceeded for about one month, i.e. when the students finished two units of study, the author had the students look at the file in order to revise their learning plan. They were also asked to analyse their opinions of English language learning which came from their previous experience by comparing it with the new experience they might have when they went through the RLTP. Justification: this activity helped facilitate a change of attitudes about language learning away from assumptions and prejudices through students' developing metacognitive knowledge or what they know about learning and themselves with respect to learning. The process of self-analysis helped the students to see if English language learning was what they previously thought it had been or not.	

9.Peer-assessment and peer-correction Objectives: to involve students in the assessment process which was the conventional role of the teacher. It also encouraged learner-centredness. Implementation: Five out of eight teachers corrected students' work and gave feedback in plenary by leading the students to the mistakes and having the students correct them. Three teachers mentioned giving the teacher's version to the students because they wanted to give a correct version as a model for the students. Three teachers reported that they corrected the students' work themselves. They gave feedback by listing common mistakes on the board and asked the students to correct them. Therefore, this peer-correction was also regarded as a language focus. Therefore, this peer-correction was also regarded as a language drilling exercise. There was a variation in conducting this activity but they all aimed at having the students learn how to self-assess their work.

Weaknesses: for the teachers who gave the teacher version of the task as a model to the students reinforced the concept of 'teacher knows best.' The final tasks were rather open; there should not be any correct version to those communicative tasks. For those who focused on the language taught in that unit, the author thought that their behaviour reflected their concern of helping the students to pass examinations rather than helping the students to understance the language use. Since the teacher is a part of a learning environment, their behaviour might affect the development of learner autonomy; the students still looked up to the teachers for help.

9. Peer-assessment and peer-correction

Objectives: to involve students in the assessment process so that they would know how to assess their learning performance. The author also wanted to help the students develop language awareness through the self-assessment process.

Implementation: the degree of breadth of final tasks was different. For a broad task, the author checked it herself because she focused on communicative use of language rather than the form of the language points emphasised in the unit the students were studying. The feedback session was handled by means of plenary discussion on the sentences the author chose from the students' mistakes and wrote on the board. The sentences chosen for discussion were either serious mistakes or common mistakes made by the students. They might be related or not related to the language focus of the unit. The students were asked to find the mistakes and to correct them. Suggestions from the students for correcting the mistakes led to discussion on the language use. For the exercise which dealt with language patterns emphasised in the unit which was not a broad task, the author had the students exchange their work to check and correct it so that they would feel confident to come from the teacher only.

Justification: assessment is the major barrier to increasing student responsibility in the learning process. Assessing English tasks requires both students' knowledge of English and their ability to assess their own learning. In order to build up the students' confidence in assessing English tasks as well as promoting learner autonomy in this area, the author involved the students in peer-correction when the assessment needed knowledge from an expert such as when the task was open. Peer-correction helped to raise the students' awareness of the language use. Peer-assessment was used with a closed task when the language use was more restricted.

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	be able to help them perform in any task successfully. Analysing their use of
	cognitive strategies enabled the students to become consciously aware of learning techniques that they operated implicitly. It also beloed them learn how to reflect on
	their learning process.
•	4. Plan their learning
	Objectives: to help the students use planning and monitoring, which are a part of
	metacognitive strategies, to plan their learning and monitor if the plan worked.
	This activity also made their learning more personal because the students were able
	to transfer their learning needs into their learning objectives. The students were
	able to make decisions on their own plans and had to be responsible for them. This
	activity also emphasised goal-setting which is important for self-directedness
	(Carver, 1984: 128).
	Implementation: The author asked the students to fill in the learning plan for LNG
	101 in order to set goals in their learning. They had to analyse their weaknesses, to
	design the activities that they wanted to do in order to improve their weaknesses, to
	think about the materials they would use with the activities and to state criteria that
	they would use to see if they achieved the objectives. The learning plan was kept in
	their personal file, One month later, the students were asked to analyse it by
	looking at the work kept in the file, their opinions about language learning and
3	strategies they used to do the task. Then they could revise the plan to make it more
	practical or to make the objectives more achievable.
	Justification: this activity helped the students to improve their planning strategies.
	It also supported psychological preparation in that it provided choices for the
	students in their learning. In this activity, the students were able to make full
	decisions on their plans and had responsibility for them.
5. Teach cognitive strategies	5. Teach cognitive strategies
Objectives: to reinforce cognitive strategies that are useful for a certain	Objectives: to introduce new strategies to the students so that they can try using
task.	them and see if the new strategies work for them or not.
Implementation: Some of the teachers said that they discussed the	Implementation: The author introduced strategies that were considered as
techniques that could be used with the task the students were dealing with	effective for certain language tasks to the students. She encouraged the students to
by telling them the techniques or checking the techniques with students .	try using them and see if the new strategies suited them or not.
	Justification: the teaching of cognitive strategies was able to expand the
	knowledge of strategies that the students had. This activity particularly helped less
	able students who had problems in learning English.

3.4. Summary

This chapter describes how the RLTP which was the main tool to promote learner autonomy was developed. The discussion addresses the weaknesses of the original learner training programme (OLTP) and analyses how the author formulated the revised learner training programme (RLTP). The RLTP involved the provision of three main elements: a learning environment where the students had control of their learning, psychological preparation which helped them to have positive attitudes to learner autonomy and methodological preparation which taught the strategies that they can employed in order to be self-directed learners. In order to achieve the objectives of those three elements, the author designed activities to be used in the RLTP, some of which were modified from the current activities; others were added. These activities aimed at improving and developing the OLTP to make the process of developing learner autonomy more effective. Documents were designed as a support to help the students develop learner autonomy; some of these were used both as pedagogic tools and as research instruments (see 4.2.3.1. and Appendices A and B). In addition to these activities, the RLTP involved desirable attitudes and behaviour of the teacher to conduct the class in order to promote learner autonomy.

Chapter 4 Research Design

Introduction

This chapter discusses the design of the study. The chapter addresses the rationale of the design, research methodology, and the methods of analysing data. The discussion of the research methodology involves consideration of the research stages, the data collection and the modification and/or expansion of the design. The research stages discussion covers how the fieldwork and the follow-up study were conducted. The discussion analyses the research instruments used in each phase of data collection, how they were constructed, used and problems arising from their use. The discussion also covers what the literature has reported about the use of these research instruments and the application of the relevant concepts in the literature in constructing the research design and the research instruments. This research study was not designed by following any one particular research or model; the author applied some of the ideas from the research and the experimentation in the area of learner autonomy which was discussed in Chapter 2. The research methodology was eclectic.

4.1. Rationale of the Design

This section provides the background of case study which was the approach used to conduct this study and provides a review of relevant literature as a rationale for the choice of this approach. The author reviews the literature related to the use of case study in education with an emphasis on research in language learning. Relevant research in language learning is presented as it exemplifies the methodology of conducting a case study research; the author adopted some of this methodology for this study. The discussion of the rationale of the design covers definitions of case study, the methodology of conducting it, and arguments about advantages and disadvantages of using case study as a research approach. The last part of the section is the justification for using the case study approach to conduct this research.

4.1.1. Case Study Research

There is a range of definitions concerning case studies. Adelman et al. (1976: 140) regard a case study as an umbrella term for the research methods that focus on an enquiry of an instance. Yin (1984: 23) defines a case study as an empirical enquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used. Larsen-Freeman and Long (1991: 11-12) define a case study with respect to the second language acquisition field as

'a longitudinal approach which typically involves observing the development of linguistic performance, usually the spontaneous speech of one subject, when the speech data are collected at periodic intervals over a span of time...normally the longitudinal approach is naturalistic, process-oriented and ungeneralisable because it deals with very few subjects.'

Merriam (1988: 16) refers to a qualitative case study as an intensive, holistic description and analysis of a single entity, phenomenon, or social unit. Case studies are particularistic, descriptive, and heuristic and rely heavily on inductive reasoning in dealing with multiple data sources.

Traditionally, a case study aims at gaining an insight into an individual unit or a case which can be either a bounded system such as a school or a single instance such as a person (Adelman et al., 1976: 140; Nunan, 1992: 75-76). Researchers normally use observation as the main method to probe deeply and to analyse intensively the phenomena from different dimensions in order to establish generalisations about the wider population to which that unit belongs (Cohen and Manion, 1994:106-105). Adelman et al. (1976: 141) regard case study research as the study of *'an instance in action'* which investigates how the instance functions in context rather than an exemplar of a class of objects, entities or events. In order to establish the relationship between the *'instance'* and the *'class'* from which it is drawn, case study research may be set up either by a) having an issue or hypothesis and then selecting a bounded system as *an*

instance drawn from a class; or b) by setting up a *bounded system* or a case where issues are indicated, discovered and studied in order to have full understanding of the case.

In this study, the author used the second method to set up the case. The RLTP was the case to be studied in order to have an insight into how it helped to develop learner autonomy. The author did not formulate any hypothesis before setting up the case.

Since the purposes of conducting a case study are either to study samples in order to make a contribution to some more general pattern or to interpret the case, the methods used to collect data are eclectic. To serve the former purpose, researchers are more likely to use techniques allowing for numerical analysis of elicited data especially questionnaires and structured interview schedules (McDonough and McDonough, 1997: 207). The techniques used for the latter purpose are naturalistic and descriptive, such as observation, narrative diaries, ethnographic interviews, verbal reports, and collection of existing information such as students' written work or test data (McDonough and McDonough, 1997: 208). Because the data are obtained from different sources, in the process of analysis and interpretation, triangulation is an important feature (Denzin, 1978).

Triangulation may be defined as the use of two or more methods of data collection in the study of some aspect of human behaviour in order to explain more fully its richness and complexity by studying it from more than one standpoint (Cohen and Manion, 1994: 233). This definition is based on multi-method approach. Adelman et al.(1976: 145) think that triangulation is the heart of the intention of the case study in order to respond to the multiplicity of perspectives in a social situation. They think that a case study should represent fairly the differing and sometimes conflicting viewpoints. Triangulation has special relevance to explain complex phenomenon such as the study of a classroom where the adoption of a multi-method approach will generate a fuller and

more realistic view of the class (Cohen and Manion, 1994: 239). It also helps to increase the reliability and validity of the qualitative data (see 4.3.3.).

Triangulation can be done at various aspects. **Time triangulation** employs a cross-sectional design to collect data from different groups at one point in time and a longitudinal approach to collect data from the same group at different points in the time sequence. **Space triangulation** may test theories among different people or measure differences between different populations. **Combined levels of triangulation** analyses data from different levels such as the individual level, the group level and the organisational level to provide more picture. **Theoretical triangulation** draws upon alternative theories instead of using one viewpoint. **Investigator triangulation** uses more than one observer or one participant in a research setting in order to obtain more valid and reliable data. **Methodological triangulation** involves using the same method on different occasions or different methods on the same subject of study (Denzin,1978: 291-307).

In this research study, the author used methodological triangulation to obtain data from different perspectives in order to gain an insight into the RLTP. For instance, the data from ASSIST and the student interviews gave details on the students' perception of freedom in learning which might affect their approaches to learning (see 5.4.). Investigator triangulation was also used. For instance, the data on the classroom environment was obtained from both the observer and the author who wrote about it in her diary. Triangulation technique was also used at the data analysis stage (to be discussed in 4.3.1.).

Advantages and Disadvantages of Case Study Research

There are advantages and disadvantages of adopting the case study as a method of research. The case study research is advocated because it is *'strong in reality.'* It also represents a multiplicity of viewpoints and insights obtained by case studies can be used

for a variety of purposes. The case can be generalisable either about an instance or from an instance to a class (Adelman et al.,1976: 148-149).

The criticism of the case study approach concerns the reliability and validity of the research. Since the case study is context dependent and the researcher searches for an understanding of the context s/he is studying more thoroughly, each case is unique and cannot be replicated. With regard to validity, as the focus of the case study is on a single instance, some researchers think that the results from the case study research cannot be generalised, i.e. case study research lacks external validity (Nunan,1992: 80).

However, researchers who advocate the case study approach have different views concerning validity. Stake (1988: 256) who regards the importance of insights into the research more than the generalisability or external validity of the research says that

' the principal difference between case studies and other research studies is that the focus of attention is the case, not the whole population of cases. In most other studies, researchers search for an understanding that ignores the uniqueness of individual cases and generalizes beyond particular instances. They search for what is common, pervasive, and lawful. In the case study, there may or may not be an ultimate interest in the generalizable. For the time being, the search is for an understanding of the particular case, in its idiosyncrasy, in its complexity.'

With reference to the use of case studies in educational research, Bassey (1981: 85-86) thinks that relatability is more important than generalisability. If the case studies are carried out systematically and critically to yield sufficient and appropriate details, the teachers who work in the same situation can relate his/her decision making to that described in the case study.

Other researchers argue that internal validity is of concern in all types of research because it involves the question of whether the investigators are really observing what they think they are observing (Nunan, 1992: 80). Guba and Lincoln (1981: 115) regard internal validity as an important aspect of because '*without internal validity results are meaningless and there is no point in asking whether meaningless information has any general applicability*.' The author agrees with this idea because in conducting a case

study research, the researcher aims at gaining as much insight into what s/he is studying. Therefore, the data obtained to explain the case have to be valid so that the case is able to give information which is of use to those who work in a similar situation. In this research study, although the author aimed at investigating the RLTP in her own workplace, it is hoped that the results of the study can be related to any educational institution which fosters learner autonomy in a limited situation.

To conclude, case study research is used to gain an insight into *an instance* which the researchers are investigating. Therefore, different research methods are employed to obtain data in order to explain multiple facets of the case fully. Since the data are obtained from different sources, it is important to link the data by using triangulation.

4.1.2. Case Study Research in Language Learning and Teaching

In the field of language learning and teaching, case study research has been used for two purposes: case studies of courses and case studies of individual language development and learner strategies.

Case Studies of Courses

Case studies of courses are normally conducted as programme evaluation, programme design and evaluation and needs analysis (McDonough and Mcdonough, 1997: 215-216). Stake (1995: 95) states that *'all evaluation studies are case studies.'* **Programme evaluation** normally deals with summative and formative modes of evaluation. Summative evaluation is concerned with the end-product of the programme whereas formative evaluation focuses on the ongoing process of course development. The techniques used include measurement scales, questionnaires and interviews (McDonough and McDonough, 1997: 215). **Programme design and development** is regarded as a case when it is a part of a whole package which starts with needs analysis, then designs the programme and finally evaluates the programme. Programme construction contains questions, data, and interpretive analysis (McDonough and

McDonough, 1997: 215-216). **Needs analysis** has been mostly conducted in the field of English for Specific Purposes (ESP). Since it is concerned with specific groups/individuals in specific contexts, it has the quality of a 'case.' The techniques most used to conduct needs analysis are questionnaires and interviews carried out with learners, language teachers, specialist staff, employers and administrators.

Case Studies of Individual Language Development and Learner Strategies

In applied linguistics, the case study has been used to trace the language development of first and second language learners. Case studies have been used in research in second language acquisition (SLA) in order to generate very detailed accounts of the process and/or outcomes of language learning for a variety of subjects.

The case study approach has also been used to investigate learner strategies. The research methods used were retrospective interviews with the learners and their teachers on the uses of learning strategies, classroom observation to detect learning strategy use in classroom setting, and think-aloud verbal report on the language task.

The author will discuss two examples of case study research on learning strategies and the affective factors that might affect the student learning in order to exemplify how those researchers employed different methods to gain an insight into the case. The author adopted some methods employed in those two pieces of research to use in this study.

Simmons (1996) conducted an ethnographic research with four participants enrolled in the Independent Learning Programme at the National Centre for English Language Teaching and Research at Macquarie University, Australia. The study aimed at investigating whether the learners had increased their awareness of their use of learning strategies and if they applied any new and more effective strategies which they had been exposed to during the training. In order to help the participants work successfully in an independent learning mode, a one-to-one learning strategy training with an emphasis on monitoring, evaluating and planning learning was provided. The participants were encouraged to monitor their learning by keeping a diary where they recorded what they had learned. The data on the use of strategies was obtained from the participants' diaries, the researcher's field notes recorded during the interview with the participants, and the comparison of the data from Oxford's Strategy Inventory for Language Learning (SILL) questionnaires which were filled at the beginning and at the end of their six-week strategy training session. The findings showed that the students used a greater higher number and variety of strategies at the end of the training period and they were more aware of which strategies suited them. The students felt that their learning and management of their programmes had improved at the end of the course.

Simmons' study focused on training the students to use metacognitive strategies because they were regarded as essential for independent learning. Simmons employed a pre test and a post test to indicate the students' improvement in their use of learning strategies; SILL was used for this purpose. Student diaries were used to help the students analyse and keep a record of their use of learning strategies.

In this research study, the author also focused on learning strategies especially metacognitive strategies. She adopted the idea from SILL to devise a checklist of strategies the students used to handle language tasks (see 4.2.3.1.). The use of student diaries were also adopted but not as a tool for the students to analyse and keep record of their use of learning strategies as they were used by Simmons (see 4.2.3.1.).

The second example is the case study of Mr. Chong by Haughton (1991). Mr. Chong was studying for a Master's degree in Business. He was considered a dependent learner in that he always sought the advice of all the individual lecturers on his courses to be certain of how they would assess the writing tasks and he tried to discover 'what the lecturers want from us'. Haughton thought that such attitude might be problematic for some overseas students like Mr. Chong studying in the disciplines such as the humanities or social science where the lecturers emphasise the open-ended nature of academic questions. However, the students might want to find one correct answer in order to do well by 'pleasing the teacher.' Such students might be confused by the questions that asked them to show their opinions or to critically evaluate the work of an authority. The study of Mr. Chong was conducted for 4-5 months and was divided into four stages:

- individual sessions on study and study skills which were mainly discussion about how to prepare for his study, preparation for the essays, his problems;
- 2) explorations of his learning styles, personality and skills in the work environment by using Entwistle and Ramsden's (1983) inventory of approaches to studying, Holland's (1985) classification of vocational personalities and work environments and Belbin's (1981) identification of team-roles associated with organisational success and the types of personality associated with each;
- a taped informal interview with Mr. Chong about his background and questioning of his responses to the test results obtained in 2;
- a taped informal interview with two of Mr. Chong's lecturers and his directors of studies.

The study revealed that the context of Mr. Chong's upbringing had an influence on his present state of dependency. Haughton suggested the development of group interaction skills as activities to help dependent overseas students such as Mr. Chong. In order to help these students to see how successful group interactions in British higher education are different from those in their home countries, Haughton suggested presenting the students with recorded academic seminars and group activities where students discussed a common theme from different viewpoints or where a variety of solutions to a common problem were evaluated.

The study by Haughton showed how a case study approach revealed multiple facets of Mr. Chong. The data obtained by using various research instruments from different perspectives, i.e. his background, his learning styles, personality and skills in the work environment, opinions from his lecturers, etc. gave an insight in to the case and provided suggestion for improvement. Like Mr. Chong's case, learner autonomy is a process that is developed gradually over time and is affected by many factors in education. Therefore, the author adopted the idea of tracing students' background of exposure to learner autonomy and investigating their learning styles, personality and skill in the learning environment by using an inventory of approaches to learning to reveal contributory factors of the students' process of developing learner autonomy.

4.1.3. Justification of Using the Case Study Approach in This Research Study

The case study approach was used to investigate the development of students' autonomy through the use of the revised learner training programme (RLTP) for the following reasons:

1. The author was not able to do random sampling of the subjects to be studied because the research study was conducted with the first year students who took LNG 101. These students were grouped according to the timetable of their department. Thus this limitation did not allow for other research designs such as an experimental design which focuses on random sampling of the subjects and control of variables. Another problem was concerned with the setting of the study, i.e. a normal classroom. Since a classroom was a complex phenomenon, using other types of research methodology such as experimental research was not appropriate because it was impossible to control the variables. Case study research employing multi-methods was more appropriate than other methods as it was able to reveal the 'reality' of the case.

2. The RLTP derived from the original learner training programme which had been used for some time and the author was familiar with the context. Thus, using the case study approach enabled the author to gain more insights into the context of study because the case study approach focuses on 'the stance in action'. The case study approach was able to reveal the multiple facets of the case, and see it from different perspectives. 3. The RLTP involved many aspects in addition to English language teaching in class. In order to investigate whether the RLTP was effective enough to develop learner autonomy, the author had to look at students' behaviours both in class and outside class, their attitudes towards independent learning, their motivation to learn English, etc. In other words, the research study focused on the process which the students went through as well as the outcomes of the students at the end of the RLTP. Thus, using the case study approach enabled the author potentially to detect any changes and/or the problems which happened throughout the course of the study; the author had to be sensitive to the context she was studying.

4.2. Research Methodology

This section discusses the methodology the author employed in this study. The discussion is separated into description of the case, research stages, and research instruments. The description of the case covers the details of the case, the subjects who participated in the study and the role of the author/researcher. The research stages and the research instruments are discussed according the two main stages of the research: the fieldwork and the follow-up study.

4.2.1. The Case

The case in this study was the revised learner training programme (RLTP) which was designed by trying to remove the weaknesses in the original learner training programme (OLTP) and which added new elements that would make the process of developing learner autonomy more effective (see Chapter 3). The RLTP was integrated into the course English for Science and Technology (LNG 101), a compulsory English course for first year Science and Engineering students.

Subjects

The subjects in this study were two English classes with which the author used the RLTP for four months in their first semester when they were taking LNG 101. In this course, the students were required to have five contact hours a week: four hours in class and one hour in the listening laboratory. The materials used in this course were six units taken from 'Interface' (Hutchinson and Waters, 1984) (see 1.2. and Appendix A). The classes that were chosen for the study were first year Tools and Materials Engineering students (TME) and first year Mechanical Engineering students (ME). They were regarded as representative of Engineering students; each group contained mixed ability students in terms of English proficiency as measured by the English scores in the National University Entrance Examination (see 1.1.3.). Having two groups enabled the author to make modifications (e.g. change of timing, clarification of instructions) to the programme if the implementation with the first group was not fully satisfactory (see 5.3.1.). Another practical reason why these two groups were chosen was because their timetabled classes for the English course were not on the same day. Since the author had to teach these two groups as well as to collect data, she needed time to analyse the data of the first group and make any necessary changes before teaching the other group. The students chosen to participate in this study were those attending the class regularly; those students would be exposed to all the elements of the RLTP. The total number of the subjects were 59; there were 26 TME students and 33 ME students.

Roles of the Author/Researcher

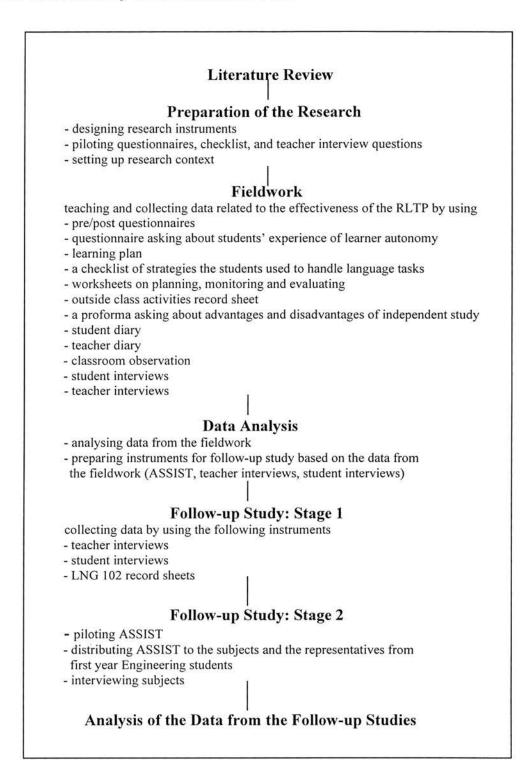
In order to solve the problems of preparing the teacher to have positive attitudes towards developing learner autonomy and to deliver the RLTP as planned, the author acted as the teacher of the two groups. The subjects were not informed that the author was conducting a research study in order to prevent the Hawthorne Effect that might occur (see 6.3.). While teaching, the author also acted as an observer recording in her diary after she finished teaching each class the events, her impressions of the class atmosphere, problems arising, and how she solved the problems. Since this research study aimed at gaining an insight into the case, the author did not formulate any hypothesis but tended to investigate the students' attitudes and behaviour that might change from being exposed to the RLTP. Other factors contributing to the change were also investigated.

4.2.2. Research Stages

The diagram below presents how this research study was conducted. The research process starts from reviewing relevant literature and ends at analysing the data from the follow-up studies. The data collection in this study was separated into two phases: fieldwork and follow-up study. The fieldwork involved the process of delivering the RLTP conducted by the author and collecting the data directly related to the effectiveness of the RLTP. The follow-up study aimed at collecting the data on how the students transferred what they had learned from the RLTP to another learning context. The follow-up study was conducted at two stages: Stage 1 was the investigation of how the students transferred what they had learned from the RLTP to the English language learning context. Stage 2 mainly concerned the students' transferring what they had learned from the RLTP to their engineering studies. Since there was an expansion of the study, i.e. the author included the investigation of the students' approaches to learning (see 4.2.3.2.1.), the author applied the Approaches and Study Skills Inventory for Students (ASSIST), which was a research instrument used to investigate the students' approaches to learning at this stage (see 4.2.3.2.1.).

The details of each stage which includes activities and timescale is presented in Table 4.1.

Diagram 4.1: Summary of the Research Process



Stage	Activities	Timescale
1. Literature reviews and preparation of	-reviewing relevant literature in order to design the activities used in the RLTP.	October, 1996-May, 1997
research instruments	-preparing the instruments used in the fieldwork.	
	-piloting the questionnaire and the checklists with the Thai students in	
	Edinburgh, making changes and translating them into Thai.	
f ar y fina	-piloting teacher interview questions with the colleague studying in Britain.	
	-setting up the context of the research; i.e., choosing the subjects by checking	
	the timetable and the students' English scores in the National University	
	Entrance Examination.	
2. Fieldwork	-distributing the pre questionnaire and the questionnaire asking about the	June-October, 1997
	students' experience of learner autonomy to establish the starting point of the	
	subjects.	
	-delivering the RLTP by integrating it into LNG 101.	
	-collecting data to see the effectiveness of the RLTP	
	-analysing the data from the pre/post questionnaires in order to know what to	
	probe in the student interviews.	
3. Analysing the data from the fieldwork,	-analysing all the data obtained from the fieldwork in order to find out if the	November, 1997-June, 1998
conducting Stage 1 of the follow-up study	data obtained was adequate to explain the factors affecting the effectiveness of	
and preparing the instruments for Stage 2	the RLTP.	
of the follow-up study	-designing the process of data collection and the interview questions used in	

The following table summarises stages of conducting the research study:

	Stage 1 of the follow-up study.	
	-sending the interview questions with explanation of the rationale behind each	
	question to the colleague in Thailand to conduct the interviews with the subjects	
21	and the English teachers who taught them in that semester.	
	-preparing the instruments based on the problems arising from the data analysis	
	to be used in Stage 2 of the follow-up study and to obtain more data to explain	
	the findings in the fieldwork.	
4. Conducting Stage 2 of the follow-up	-piloting the translated ASSIST with the first year Engineering students at	July-August, 1998
study	KMITNB.	
	-distributing the inventory to the subjects and scheduling them for the	
	interviews.	
	-distributing the inventory to the representatives of first year Engineering	
	students.	
5. Analysing the data from Stage 2 of the	-analysing the data obtained from the ASSIST and from the student interviews.	September, 1998-July 1999
follow-up study		
6.Writing up the thesis		August, 1999-August, 2000

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4.2.3. Data Collection

There were two main phases of data collection in this research study: the fieldwork and the follow-up study. This section describes how the research instruments were employed in each phase of the data collection; some of the research instruments were used both as pedagogic tools and research instruments. The description covers the relevant literature about the instruments, how they were constructed including the piloting and the language used to construct them, how they were used in this study and the problems that arose when using those instruments. The details of the description of each research instrument vary depending on the complexity of the instrument and how it was used. The discussion also covers the modification and/or expansion of the research design in the follow-up study.

4.2.3.1. Fieldwork

The fieldwork involved the delivering of the RLTP in the first semester while the students were taking LNG 101 (between June and September, 1997). The author taught two groups of Engineering students and collected the data at the same time. Since the fieldwork was conducted in a complex setting i.e. a classroom, the author employed 12 instruments in order to obtain the data to reveal a multiplicity of perspectives and explain the case fully. The author employed both qualitative and quantitative approaches to obtain the data. The research instruments used in the fieldwork are as follows:

1. Pre/Post Questionnaire

In second language acquisition research, questionnaires are used mostly to collect data on phenomena which are not easily observed, such as attitudes, motivation and self-concept opinions, as seen from Cotterall's study to investigate learners' beliefs (see 2.3.1.2.2.). They are also used to collect data on the processes involved in using language and on background information about the research subjects, e.g. age,

background in language learning, years of studying the language, etc. (Seliger and Shohamy, 1989: 172)

In this research study, the questionnaires were used to obtain two sets of data: before the RLTP was implemented and after it ended. The questionnaires were used as the main instrument to detect

- (1) if the students changed their attitudes towards independent learning,
- (2) if their confidence in engaging in an independent learning mode increased
- (3) if the students changed their attitudes to learner autonomy.
- (4) if there was a change in the students' use of metacognitive strategies and their behaviour that indicated their self-directedness.
- (5) other factors that might affect the students' attitudes and/or behaviour after the RLTP ended.

The questionnaires were separated into two sections: attitudes and behaviour. The attitudinal section was constructed by using a six-point-rating scale to ask the students to rate statements concerning their attitudes from 6-strongly agree, 5-agree, 4-slightly disagree, 3-slightly agree, 2-disagree to 1-strongly disagree. The six-point-rating scale was a modified Likert scale by adding one more point in order to avoid the rating on the middle of the scale being chosen which tends to happen when those who fill in the questionnaires do not want to commit themselves. Sometimes the midpoint is difficult to interpret, i.e. the respondent has no opinion because the question is not relevant or because s/he is not interested (McDonough and McDonough, 1997: 176). By using the six-point-rating scale, the author was able to see if the students rated on the positive (4-6) or negative (1-3) side of the scale.

The behavioural section of the questionnaire asked how frequently the students did the activity stated in the items. The author used a four-point-rating scale for this section ranging from 4-always, 3-often, 2-sometimes to 1-never. The four-point rating scale was used in the behavioural section because it reasonably explained how often the

students performed an action. There were 54 items in the questionnaire (see the questionnaire in Appendix B)

• Constructing the Questionnaire

The questionnaire was constructed after the design for the RLTP had been completed. The author analysed the areas in which she wanted to train the students and made decisions on the aspects that were expected to be affected after the students went through the RLTP. It was undesirable to have a long questionnaire because the length of questionnaire affected motivation of the respondents (Oppenheim, 1999: 104); therefore, the author had to consider relevance of the areas to be asked about as the main priority. For example, for the broad area such as motivation, the author asked about intrinsic motivation because it was directly related to the RLTP; encouraging learner autonomy was believed to enhance intrinsic motivation to learn (see 2.3.1.1.1.). Extrinsic motivation was asked about in relation to instrumental use of English language; the information came from the data obtained from the preliminary interviews with the first year students at KMUTT in 1996, one year before the fieldwork was conducted.

In November, 1996, the author went back to Thailand to conduct a pilot interview study with 30 first year students about their opinions of English language learning in the university in order to find out about their motivation to learn English. The students showed strong intrinsic and instrumental motivation to learn English when asked to give reasons for and/or to talk about their goals of studying English in the university. None of them mentioned getting a good grade. They said that to be good at English took a lot of time; therefore, what drove them to study was not the final grade. They were university students; they had to think about their future prospects where English was important. This information accorded with Dornyei (1994b: 520), who believes that instrumental motivation is relevant to young adult learners who study English as a foreign language (see 2.3.1.2.1.).

After the areas to be investigated were finalised, the literature was reviewed to identify the questionnaires that might be used in this study. Some of the questions were taken from the existing questionnaires in the literature (Cotterall, 1995: 197-202), some were devised by the author. Then the questionnaire was piloted to find out whether the instructions and the statements were comprehensible.

• Piloting the questionnaire

The questionnaire was piloted with 15 Thai students studying in Edinburgh. They were post-graduate students studying in the field of science and engineering. After piloting, the author had to change the organisation as well as the wording of the questionnaire based on the feedback from the pilot group. In the original version, the author used a six-point rating scale ranging from strongly agree to strongly disagree for the whole questionnaire. However, this rating scale could not be applied with the statements on behaviour. Those who did the questionnaires said that some items should be rated in terms of how frequently they performed the action rather than if they agreed with the statements or not. Therefore, the final version consisted of an attitudinal section where the items were rated by using the six-point rating scale ranging from strongly agree to strongly disagree and the behavioural section where the items were rated by using a four-point rating scale ranging from always to never. The questionnaire was in Thai.

The questionnaires were distributed at the first English class before the RLTP was implemented to establish the students' starting point and they were distributed again at the end of the course, four months later. The content of the pre and post questionnaire was the same. The areas that were investigated by the questionnaires were as follows (the areas are described in the same order as the results shown in Table 5.5).

1. <u>Attitudes to an Independent Learning Mode.</u> Since the RLTP focused on having students engage in an independent learning mode so that they would have hands-on experience of this learning mode, the author investigated (1) the students' attitudes

towards learning with and without a teacher, (2) their level of preference for this mode of learning and (3) their opinions on this learning mode. The questionnaire items which were rated on the six-point scale were:

1) Learning English can be done without help from the teacher.

2) The best thing to do when learning English is to go to a class.

3) I don't like to study on my own because I don't know where to start.

6) Students should not learn by themselves because they may use a wrong approach to learning.

14) If I had the right materials, I'd prefer to spend some time studying alone.

2. <u>Confidence to Learn by Themselves.</u> Since the RLTP provided the students with hands-on experience in independent learning and because it was expected that some of the students would engage in this learning mode in the SALL after they realised its advantages, the author wanted to investigate if the students were confident in engaging in this learning mode. Their confidence was checked by asking how confident the students were that they could learn without help from the teacher. This information was used to see if the students' attitudes towards this mode of learning affected the change in their behaviour. The questionnaire items that were rated on the four-point scale were:

43) I know how to study English well.

44) I can study English without a teacher's help.

45) If I am left to do things on my own, I worry whether I am doing the right thing.

3. <u>Attitudes to Autonomous Behaviour</u>. This area involved behaviour that autonomous learners should practise, i.e. (1) knowing learning objectives, (2) self-evaluating their learning progress, (3) making decisions on how to learn and (4) finding opportunities to practise English by themselves. A high score in these four areas was taken to indicate a high positive attitude to taking responsibilities for one's own learning. The author investigated this area as a whole as well as looking at its subcategories. The statements, which were rated on the six-point scale, were as follows:

- 3.1. Knowing Learning Objectives contained the following items:
- 5) Students should have identifiable purposes in learning.
- 11) The teacher should explain why students are doing an activity.
- 3.2. Self-evaluation contained the following items:
- 4) Students should evaluate their learning progress to see if they have weaknesses.
- 9) The teacher should tell students what their difficulties are.
- 13) The teacher should tell students how they are progressing.
- 3.3. Making Decisions on How to Learn contained the following items:
- 10) The teacher should tell students how long they should spend on an activity.
- 12) The teacher should tell students what to do.
- 3.4. Behaviour that Shows Learning Responsibility contained the following item:
- 8) Students should try to find opportunities to practise English by themselves.

4. <u>Self-Directed Behaviour</u>. In order to analyse further the attitudes towards learner autonomy, the author investigated how frequently the students engaged in activities that showed self-directedness. The items which were rated on the four-point scale were:

33) I have my own way of testing how much I have learned.

34) I know what my weaknesses in studying are.

35) I try to improve my weaknesses in studying.

36) I want teacher's feedback on my learning regularly.

37) I try to find out the objectives of each exercise so that I know what to do to reach them.

38) I often think about how I can learn English better.

5. <u>Intrinsic Motivation to Learn English.</u> There were two reasons why the author chose to investigate students' intrinsic motivation to learn English:

1) the RLTP involved enhancing students' intrinsic motivation to learn English through providing an environment where students had self-determination and felt that they were competent to learn English (see 2.3.1.1.1.). Therefore, the change in students' intrinsic motivation could indirectly indicate if the RLTP was effective or not.

2) the author used students' involvement in English outside class activities as well as their involvement in classroom activities as an indicator of their autonomous behaviour which might result from their attitude change. The degree of students' intrinsic motivation to learn English could be used to explain why the students behaved in a certain way. The questionnaire items, which were rated on the six-point scale, were:

20) I like to study English because it is interesting

21) It is enjoyable to do tasks in English.

22) Learning English is a challenge that I enjoy.

23) Learning English is a hobby for me.

6. Extrinsic Motivation to Learn English. As stated earlier in this section, extrinsic motivation in this study was investigated in relation to the instrumental use of English. Therefore, the author looked at short-term instrumental goals and long-term instrumental goals to see how they affected students' decisions to involve themselves in English activities, both in class and outside class. If their motivation was related to a long-term goal such as getting a good job, the students might not think of English as their immediate priority in learning and might not do any English activity outside class. The items, which were rated on the six-point scale, were:

6.1. Short-term Goals:

24) I have to study hard to pass this course because it is important for my grade point average.

29) I learn English because I need to be able to read English textbooks.

31) Knowing English allows me to enjoy entertainment more.

6.2. Long-term Goals:

26) I learn English because I want to spend a period of time in an English-speaking country.

27) I learn English because it is useful when travelling to other countries.

28) I learn English because I want to study abroad.

30) If I learn English well, I will be able to get a better job.

7. Students' Attributions for Success and Failure. According to attribution theory, the person's attributions for his successes and failures influence his/her expectations for future success and thereby his/her motivation (see 2.3.1.2.1.). This area was investigated in order to support the findings about the students' motivation. How the students attributed their success and failure might affect their behaviour, which might be related to their attitudes to learner autonomy. For example, if the students attributed their success in doing an English task to their own effort, they would not be reluctant to engage in such an activity. Autonomous learners are those that attribute their success to effort because this indicates their responsibility in learning (Dickinson, 1995: 174). The students' attributions for success and failure were also related to motivation in that although they attributed their success to their own effort, their decisions to do the activity also depended on their motivation to learn English. The manner in which they engaged in the task, e.g. doing the task independently, could indicate their attitudes to learner autonomy. Thus, the author hypothesised that students' attributions for success or failure, their motivation to learn English together with their attitudes to learner autonomy would play a role in students' choice of engaging in a certain language task, i.e. how they would do and what sort of activity they would engage in.

According to attribution theory, there are four perceived causes of success and failure in achievement tasks: ability, effort, task difficulty and luck. However, from her experience in teaching a compulsory English course at KMUTT, the author had heard from some of the students that they attributed their success or failure to the teacher as a source of motivation. Therefore, it seemed reasonable to include the teacher as a cause of attribution. Luck was specifically related to grades or scores gained from completing the task. Therefore, it was not relevant in this context because the tasks in LNG 101 focused on process rather than product; the students perceived the success of their performance from feedback given by the teacher without getting any marks and the tasks they did throughout LNG 101 did not account for the final grade. When correcting the tasks, the author tended to focus on how they were able to communicate rather than on accuracy of language use. Thus, what they wrote down would be accepted as correct to

some extent so the students would think that they succeeded in doing the task because of their ability. The questionnaire items, which were rated on the six-point scale, were as follows:

7.1. Effort:

16) If I do well in this course, it will be because I try hard.

7.2. Ability:

15) If I study in appropriate ways, then I will be able to learn English successfully.

17) If I don't do well in this course, it will be because I don't have much ability for learning English.

7.3. Task Difficulty:

18) If I don't do well in this course, it will be because the course is too difficult.

7.4. Teacher:

19) If I learn a lot in this course, it will be because of the teacher.

8. <u>Using Metacognitive Strategies to Learn English.</u> Metacognitive strategies in this study were taken to be those that made the students conscious of their learning; the strategies involved using planning, monitoring and evaluating in the learning process (see 2.3.1.3.2. and 3.3.3.). Since methodological preparation in the RLTP dealt with enabling the students to be aware of using metacognitive strategies and the need to practise using them, the author thus wanted to see if students used metacognitive strategies more after the RLTP by investigating this category as a whole as well as in the three subcategories. This area was asked about in relation to how frequently the students employed these strategies. The questionnaire items, which were rated on the four-point scale, were:

8.1. Planning

47) I plan what to do to finish my assignment.

48) I make sure I understand what has to be done and how to do it before I start working on my assignment.

8.2. Monitoring

46) I am aware of which thinking technique or strategy to use and when to use it.

49) I keep track of my progress and, if necessary, I change my techniques or strategies.

50) I check my work while I am doing it to see if I am on the right track or not.

52) I am aware of my on going thinking process.

8.3. Evaluating

51) I try to correct any mistake arising from the work I'm doing.

53) If I get bad feedback for my assignment, I analyse my weaknesses so that I can improve it next time.

54) I always analyse my weaknesses in learning.

Additional items

Items 39-42 were included for a purpose unrelated to this study, and are therefore not discussed here.

2. Questionnaire Asking about Students' Experience of Learner Autonomy

In order to explain the development of learner autonomy in the students, investigating their prior educational experience in exposure to learner autonomy was necessary. A second questionnaire was developed to investigate whether the students, while studying in secondary school, had been exposed to any learning condition which encouraged learner autonomy. The data obtained from this instrument would be considered as one of the factors that might affect students' change of attitudes and behaviour. It could be used to explain the degree of change that the students might show.

In the questionnaire, the students had to answer the questions which were asked in Thai by means of rating on a four-point scale, ranging from often, sometimes, rarely to never and ticking whether their schools provided a self-access centre. With reference to prior experience in learner autonomy, the author looked at teachers' behaviour which reflected their attitudes towards learner autonomy, classroom activities that promoted learner autonomy and facilities provided. The teachers' behaviour involved their encouraging students to learn by themselves, involving students in the decision-making process, listening to students' opinions before deciding on what the tasks would be about and teaching new strategies so that the students would be able to deal with the tasks more effectively. The classroom activities which the author focused on were those that allowed the students to make decisions and trained them to be self-directed learners such as self-correction, project work, activities that raised students' awareness of their learning strategies and analysis of learning objectives. In addition to the classroom environment, providing a self-access centre as facilities to cater for independent learning has been done in many educational institutions. The self-access centre project has been adopted in many secondary schools in Thailand as a result of the encouragement of the Ministry of Education. Therefore, the author wanted to know whether the students had been exposed to the use of such facilities.

In fact, that data could also be obtained through interviews but it was collected at the beginning of the course when the author did not have rapport with the subjects. Thus, the author decided to construct this questionnaire for the students to fill in instead of interviewing the students.

3. Learning Plan

The idea of the learning plan came from learning contract or learner contracts which help to provide structure in a self-instructional learning mode (Dickinson, 1987: 98-102). A learning contract involves a '*negotiated learning plan*' which requires the learners to do the following things:

a) be explicit about their learning intentions;

b) set clear and achievable goals;

c) justify their plans in terms of their own personal, vocational and/or academic development;

d) develop their communication, decision-making and evaluating skills;

e) address key issues such as the level of performance required to secure external accreditation (Laycock and Stephenson, 1993: 17-18).

Typically, the learning contract involves students in negotiating their learning goals, the methods by which those goals will be met and the means by which the achievement of the goals can be assessed and at what level. Laycock and Stephenson regard the learner contract as one of the techniques in higher education which explicitly require students to engage in a process which enables them to plan, monitor and review learning progress and accept more autonomy (Laycock and Stevenson, 1993: 17).

The learning contract was used as pedagogical tool to facilitate self-directed learning such as the learning programme Farmer (1994) had the students plan in groups by stating objectives and chosen materials at the Study-Centre, Hong Kong Polytechnic (see Chapter 2, pp. 55-56). It was also used in the self-assessment project to develop self-directed learning conducted by Thomson (1996) (see Chapter 2, pp. 50-52). Both the learning contracts and the learning plans were employed in the research on self-instruction training conducted by Fernandez-Toro and Jones (1996) (See Chapter 2, pp. 78-81). The learning contracts were used to facilitate learners' monitoring of their performance; they were used for pedagogic purposes. The learning plans were used both as pedagogical and as research tools. They were used by the learners to write down their learning goals and planned strategies to achieve the goals; they were used to help the learners to set goals and to reveal the students' improvement of their goal-setting.

In this research study, the author adopted the idea of a learning contract to be used as a pedagogic tool which was intended to enable the students to make decisions about learning. Since the LNG 101 syllabus was predetermined, it was impossible to use the learning plan for the purpose of negotiating the syllabus of the course with the students. Therefore, the learning plan was used to allow the students to set their own learning objectives because the predetermined objectives of the course might not accord with their needs. In addition to providing choices in learning, the author adopted the idea of enhancing self-efficacy through learning goals (Schunk, 1989: 96; Dweck, 1986: 1040-1046). Learning goals also helped the students to have purposes in learning and to help them to be self-directed learners (Carver, 1984: 128). To complete the learning plan, the students had to use metacognitive strategies as they had to plan, monitor while doing the activities set by themselves and evaluate if they were able to achieve the objectives. In summary, the learning plan was used as a pedagogic tool to provide choices in learning, as a tool to facilitate the process of goal-setting and as a tool to practise metacognitive strategies.

As a research instrument, the learning plan was used to reveal the development of students' use of metacognitive strategies. The students were asked to fill in the plan before the course started so that

(a) they would formulate their own learning objectives for the course,

(b) they would detail what they would do in order to reach the objectives,

(c) they would list materials needed and where to find such materials and

(d) they would establish the criteria used to evaluate whether they had reached the objectives set or not (see the learning plan in Appendix B).

The students used Thai to fill in the learning plans so that they were able to express themselves more fully. The first learning plan was prepared in English. However, when the author realised that the students had problems understanding the language which made the process of filling in the learning plans slower than expected, she prepared the second learning plan in Thai. Using Thai in the second learning plan proved to be useful because the students were able to analyse their first learning plan and their performance from the work kept in the file without any interruption arising from not understanding the form.

The students' learning plan was kept in their own file which was kept in the cabinet in the SALL; the students could get access to their file whenever they wanted to. After finishing Unit 2 (about 4 weeks after the beginning of the course), the students

were asked to analyse their documents in the file, e.g. looking at their learning plan and analysing if they had achieved the set objectives or not. Then the next learning plan was given to the students to fill in. The second learning plan could be regarded a revision of the first one in case anybody was not able to reach the objectives or they found that there were other objectives that they needed to achieve first. The author wanted the students to analyse their real needs as well as their constraints after they had studied for some time to plan their own learning.

Problems Arising from Using the Learning Plan

The main problem was that of time constraints. Originally, the author planned to have the students analyse and complete their learning plans three times. However, after the mid-term exam, the students had to engage in many extracurricular activities which affected regular hours of the English class (see 1.3.). Therefore, the author had to give them extra classes in order to complete the content required for the final examination. Thus, the learning plan which was to be done in class had to be cancelled in the second half of the semester. However, since the students had to do the project (see 3.2.1.) which involved planning, monitoring and evaluating, the author used the project as a context to have the students implement these strategies by having them fill out the documents stating their plan for their project and describing how they completed the project. The questions asked included those related to monitoring and evaluating strategies (see the worksheets to help the students work with the project in Appendix A).

4. A Checklist of Strategies the Students Used to Handle Language Tasks

A checklist contained statements describing what the students might do in order to tackle a certain task (see an example of the checklist in Appendix B). The author adopted the idea of the checklist from the *Strategy Inventory for Language Learning (SILL)* devised by Oxford (1990: 293-296). Oxford constructed it as an instrument for a structured self-report survey to gather data on language learning strategies by looking at how often the learners use particular learning strategies based on a five-point rating scale which ranges from 'never or almost never' to 'always or almost always.' The SILL has been used for both research and classroom practice (Oxford, 1990: 198-199).

In this research study, the checklist was used both for teaching and for collecting data. Since the students might not know how to analyse and talk about their learning strategies, providing a checklist would help them to go through the process of analysing their learning strategies. Helping the students to be aware of the strategies they employed would enable them to see the effectiveness of the strategies they chose to deal with the tasks.

As a research instrument, the author used the checklist to reveal the students' use of metacognitive strategies. Metacognitive strategies involved planning, monitoring and evaluating. Since monitoring and evaluating are overlapping, the author regarded any evaluation strategy taking place during the course of action as monitoring because the students had to evaluate if they had any problem while doing the task. Monitoring focused on how the students successfully completed the task. Evaluating was done at the end of the task when the students checked whether they had performed correctly. The checklist also included an item asking if the students did not evaluate, i.e. if they did not use any strategy.

The author used the checklist with listening, speaking and writing tasks because the three skills were not emphasised much in the secondary school as seen from the texts assigned by the Ministry of Education to be used in secondary schools. The students were more familiar with reading and grammatical structures as these two areas were emphasised in the National University Entrance Examination (see 1.1.3.). Therefore, the author assumed that the students were more aware of strategies they used in reading than they were of strategies that they used in the other three skills.

With regard to listening and writing skills, the author looked at how the students planned, monitored and evaluated the task they were doing. The checklist on listening

skills was used to reveal the students' use of metacognitive strategies in the tasks they practised in the listening laboratory. A few final tasks which were writing tasks were chosen for the students to report their strategies in completing them. Because of the time constraints, the author was not able to use the checklists with every final task.

Speaking was the skill that the students were not familiar with when studying in secondary school. Although in class the author tried to use English as much as possible, speaking was done by means of answering questions rather than by interactive speaking. In order to reveal the students' use of metacognitive strategies while speaking and to help them to be aware of the strategies they used, the author had the students practise speaking interactively with her while they were doing the self-study in the SALL by spending 5-10 minutes talking to each subject. Oxford (1990: 161) states that monitoring one's own error is used mainly in speaking and writing. Therefore, the author focused on monitoring strategies in order to find out if the students monitored their spoken language and what strategies they used when they knew that they could not communicate successfully.

To implement this research instrument, the author distributed the checklists at the end of the writing and speaking tasks so that the students could tick the strategies they used in the task. The first time when the checklist was distributed, the author explained the process of doing it. The checklist on listening strategies was applied almost at the end of the semester, when the students had enough experience and had practised doing a variety of listening tasks in the listening laboratory. They could tick as many strategies as they wanted to as long as they used them. The use of a checklist was regarded as a retrospective self-report. The checklists were kept in the files so that the students could look at them and see if the strategies which they chose were effective or not when they compared them with the outcome of the task. The author asked the students to look at all the documents in the file before they revised the second learning plan. It was thought that this might be able to help the students analyse their performance in order to set learning objectives based on their weaknesses.

• Constructing the Checklist

To construct the checklist, the author adopted the idea from the SILL by writing statements describing what the learner might do to tackle the task but did not provide a five-point rating scale as the aim of the checklist was to find out what strategies the students used rather than how often they used the strategies. The author listed the strategies, both cognitive and metacognitive strategies, by separated them into three stages: planning, monitoring and evaluating. The checklist was given to the 10 PhD students in Edinburgh, who were all experienced language learners and who had a scientific background, to look at the checklist and to add strategies they used to the list. The checklist was originally constructed in English but when the checklist of writing strategies was used with the TME students, the students did not understand the meaning of every item. Thus, the author had to translate item by item orally in class and asked the students to tick at the end of each item; it was time-consuming. Then the author translated the listening and the speaking checklists into Thai.

Problems Arising from Using Checklist

Again, the author encountered the problem of time constraint; she was not able to use the checklist with every final task of the unit which was the written task. After the author used the checklist with the final task in unit 1 which was a writing task, she had no time to use the checklist with other writing tasks. The data on the students' use of monitoring strategies in speaking skills was also obtained only once when the students did their self-study in the SALL under the author's supervision. The strategies the students employed to do the listening tasks were those they normally used when doing the listening exercises in the listening laboratory. Although the author was not able to obtain much data from the checklist, she was able to use it to help the students to be aware of their use of metacognitive strategies in dealing with language tasks; it was useful as a pedagogic tool.

5. Worksheets on Planning, Monitoring and Evaluating

The worksheets were one form of self-report surveys because the students were asked to describe what they did when they planned, monitored and evaluated writing tasks. The research in language learning uses self-report surveys to collect systematic written data on language learning strategy use. Self-report surveys can be done in a more structured manner such as using multiple-choice questions which can be scored and analysed. Using open-ended questions that are designed to have learners describe their language learning strategies freely in writing such as the worksheets in this study are regarded as less-structured self-report surveys (Oxford, 1990: 198-199).

The worksheets also had a double function- as a pedagogic and a research toolthe author designed the worksheets which focused on planning, monitoring and evaluating to enable the students to be aware of the metacognitive strategies they employed to do the task as well as to investigate the way they used these strategies. The idea of the worksheets may seem to repeat the use of the checklist, i.e. enabling the students to be aware of their use of metacognitive strategies. However, the worksheets were regarded as a description of the students' use of metacognitive strategies rather than reporting their use according to the strategies listed by the author. Therefore, the worksheets were used after the students had some ideas of analysing their learning strategies from the use of the checklist.

Since it was a self-report task, the author tried to ask questions that were able to reveal the students' use of strategies as much as possible. Generally, metacognitive strategies are those that help learners to control their cognition and involve thinking about the learning process, planning for learning, monitoring of comprehension while it is taking place and self-evaluation after the learning activities have been completed (O'Malley and Chamot, 1990: 8).

The author asked the students to report how they planned, monitored and evaluated by including the questions on direct attention, selective attention, selfmanagement, and problem-identification. These strategies were revealed by the longitudinal study conducted by Chamot et al. to understand the factors affecting performance on foreign language tasks. They found that the metacognitive strategies the learners used were planning, direct attention, selective attention, self-management, selfmonitoring, problem identification and self-evaluation (O'Malley and Chamot, 1995: 137-138). In this research study, metacognitive strategies focused on planning, monitoring and evaluating. The findings from the study by Chamot et al. helped the author to add questions about direction attention, selective attention, self-management and problem identification because these strategies fitted with planning, monitoring and evaluating. At the planning stage, the students normally think about how to do the task (planning), which part they will pay more attention to (direct attention and selective attention) and what they will do if they have not enough knowledge to do the task (selfmanagement). Monitoring includes self-monitoring and problem identification. While monitoring their performance, the students have to identify what the problem is and check if they carried out the performance satisfactorily. Self-evaluation is when the students check whether they have completed the task satisfactorily.

The author used the worksheets only with the final tasks. It was hypothesised that the students would use metacognitive strategies in the tasks that were complex enough such as those that were open or involved many people to complete. The students had to answer open-ended questions describing what they did while planning, monitoring and evaluating the task. The worksheets were in Thai so that the students could explain their working process thoroughly (see the worksheets in Appendix B).

Problems Arising from Using the Worksheets

The self-reporting worksheets did not yield as much data as the author expected. The students did not answer every question. This might be due to the fact that the students were not trained how to describe their learning process. The data obtained from this research instrument was not adequate to analyse the students' use of metacognitive strategies. However, it worked well as a pedagogic tool as some of the students mentioned '*learning to analyse myself*' as what they learned from LNG 101; this answer implied their awareness of the emphasis of self-analysis in the RLTP.

6. Outside Class Activities Record Sheet

The record sheet was used as an instrument to reveal the English activities which the students took part in outside class; this might indicate their motivation to learn and their self-directedness. The English activities the students took part in outside class also indicated how the students, in order to achieve their learning objectives, managed time and monitored their learning performance, the aspects they specified in the learning plans. The author reproduced a record sheet which is normally used in the SALL as a tool to facilitate self-monitoring and self-assessment processes by designing the form to be more suitable for the purpose of this research study. The record sheet aimed at recording the activities the students chose to do as well as helping the students monitor their performance. Therefore, in addition to recording activities and time spent on the activities, the author included open-ended questions for the students to describe what they had learned, the problems they had encountered and how they had solved them (see the record sheet in Appendix B).

The record sheets were given to the students after they finished filling in the learning plans. They were asked to fill in the record sheet whenever they were engaged in any outside class activity which helped to improve their English. The record sheets were kept in the students' files. The author provided more sheets when the students needed them.

• Problems Arising from Using the Record Sheet

This instrument did not work because the students did not keep records when they engaged in outside class activities that helped to improve their English. The author attempted to solve this problem by interviewing each student on the basis of the information s/he wrote in the learning plan in order to find out what s/he did to achieve his/her objectives set in the learning plan. It was found that those engaged in outside class English activities did not think that they had to keep the record because the activity was a part of their daily routine. For example, although listening to English songs or watching English soundtrack movies were able to improve their English, the students did it because of their inclinations; they did not think that such activity was an English activity. Therefore, they did not record it on the record sheet.

7. A Proforma Asking about Advantages and Disadvantages of Independent Study

A proforma was also regarded as a self-report instrument where the students were able to describe freely in Thai their opinions about the advantages and the disadvantages of independent study. Although the data obtained from the proforma could have been obtained from interviews, the author thought that giving time for the students to think thoroughly and then write down their opinions might yield more data. Therefore, the proforma was prepared for the students to fill in their opinions about the advantages and disadvantages of independent study after they had hands-on experience to engage in this mode of learning in the SALL (see 3.3.2.). The students were asked to list the advantages and the disadvantages of independent study on a ten-point scale. The students had to rate on the scale what they felt about this mode of learning; the scale ranged from very useful to not useful at all (see the proforma in Appendix B). The data from this instrument was used to support the data on the change of students' attitudes towards the independent learning mode which was revealed from the pre/post questionnaires.

8. The Student Diary

A diary used in research in English language teaching and learning context can be defined as 'a first-person account of a language learning or teaching experience, documented through regular, candid entries in a personal journal' (Bailey, 1990: 215). Elliott (1991: 77) thinks that a diary should contain 'anecdotes; ... accounts of conversation...; introspective accounts of one's feelings; attitudes; motives; understandings in relation to thing, events, circumstances' and should be kept on a continuous basis. McDonough and McDonough (1997: 124) consider the data from diaries being 'rich' both quantitatively and qualitatively as there is a great deal of data since more than one theme is addressed. The data are self-evidently subjective and introspective where the perspective of the 'I' dominates. They can record what happens, what the writer felt about it, what might or should have happened, what could change, opinions, anticipation and immediate reactions, as well as a more reflective tone.

In language teaching and learning, diaries are used for pedagogic purposes as well as a platform for research (McDonough and McDonough, 1997: 127). With reference to pedagogic use, the diary is treated as confidential between teacher and learners. It is usually written in the target language so that it can be used to investigate actual L2 language development. It is not normally used for error correction as its purpose is expressive. The students are normally given some guidelines before they start writing (McDonough and McDonough, 1997: 127-128). An example of using diaries for pedagogic purposes is from the work by Dam (1995: 40-41), who asked her students to keep diaries in order to keep track of their work undertaken. She asked the students to record activities, new words and expressions used, homework, their comments on the day's work. The diaries were beneficial to the students in that they helped them to see what they had done, to remember the new words, to improve their writing and so on. The diaries were useful for the teacher to follow the work for an individual student, his/her interests and needs and to communicate with the students.

An example of using diaries for pedagogic purpose in other courses in higher education was the work by Cowan (1998: 12-15) who used them with first year students taking Interdisciplinary Studies course in order to help the students reflect on their learning. Since the course aimed at developing the students' abilities to be successful in studies in higher education and in professional life, the diaries or learning journals were used to help the students think about what they had learned or what they thought about their thinking, i.e. thinking reflectively. The journals were commented on by Cowan and his colleague without giving any judgement, only questions for clarification if the content was not comprehensible. The students were enthusiastic about and valued this activity and became more involved in writing reflective journals. Cowan and his colleague were able to identify the problems mentioned by the students and found ways to help them.

With regard to research, diaries are important tools which are used in investigations of second language acquisition, teacher-learner interaction, teacher education, and other aspects of language learning and use (Nunan, 1992: 119-120). For example, Parkinson and Howell-Richardson (1989) reported two diary studies: one study analysing informativity, the use of English outside class and the learners' anxiety level, the other looking at out-of-class use and learning strategies. The most quoted language-learning diary study is Bailey's work while learning French. The data from her diary revealed her competitiveness and anxiety (Bailey, 1983).

In this research study, the student diary had a double function. Each student was given a book to be used as a diary in which they could record what they learned in class, their problems, and their opinions of the English class; these categories were suggested by the author. The diary writing was not compulsory because the author thought that keeping learning diaries should be done on the basis of the students' inclination. She only talked about why she gave a diary to every student. The diaries were regarded as a means of communication between the students and the author because some students did not like to talk about their problems with the author but they mentioned their problems in the diaries. The author asked the students to write in English about what happened in their English classes for the whole week and to hand it in once a week. Then the author read, replied to, and gave back the diaries to the students. Since it was a diary writing activity, the author made it personal by reacting only to the content; the correction of grammatical mistakes was made only when they were serious enough to change the meaning of the content. However, the grammatical mistakes were not discussed in class. As a pedagogic tool, the author hoped that the diary writing activity enabled the students to develop their writing skills and to have the chance to reflect on their learning. As a

research instrument, the author hoped that student diaries could reveal affective aspects of the students in relation to the RLTP.

• Problems of Using the Student Diary

The data from the diary was not adequate to explain either their attitudes towards LNG 101 or towards the author. Not all of the students wrote the diary, only the ones interested in improving their writing did. Since the students were not used to keeping diaries although the author asked them to write about their attitudes, problems and any other aspect concerning the English class, they tended to describe what they had learned in class and mentioned a little bit about the difficulty of the tasks. Some students wrote what they did over the weekend, e.g. they wrote about the movies they went to. From observation, the students showed interest and enthusiasm to read comments from the author. All of them carried their diaries to every English class and some students spent time at the beginning of the class while waiting for the class to start writing their diaries. The author thought that the problems of not being able to obtain data by using the diaries might come from:

- her regular informal talk with the students which enabled the students to talk about their problems in learning. Thus, the students might have thought that it was not necessary to write the same information in the diaries.
- 2. the use of English as a means to express the students' feeling and opinions. Since the students' diary had a double function, i.e. as a pedagogic tool and as a research tool, the use of English seemed to serve the first purpose rather than the second purpose. If the author had intended to analyse the students' development of syntax and lexis, using English to write the diaries would have been appropriate. Asking the students to keep the diaries in Thai might have worked better as a research tool to reveal their attitudes towards their learning LNG 101.
- 3. the students' not being familiar with expressing themselves because science students have not been trained that way.

9. The Teacher Diary

McDonough and McDonough (1997: 131) regard teacher diaries as one way which enables teachers to get closer to their own work through critical reflection and research. Therefore, it can be used for teacher education. For example, Porter et al. (1990: 228-229) include teaching experiences in their list of topics which student teachers respond to in diaries. The student teachers are asked to develop individual written accounts of their classroom experiences and their reflections on the teaching/learning process. With reference to teaching and research, McDonough and McDonough (1997: 135) think that teacher researchers and professional researchers normally keep diaries because the diary is used as a vehicle for process research in order to reveal psychological, social and affective factors involved in teaching or in language development which cannot be reached by other means.

In this research study, the author made diary entries at the end of each lesson she taught to record what had been done in each lesson, problems arising, feedback from the students, etc. The data from the diary was used to check against the data from the classroom observation. For example, when the observer commented on any teaching technique that caused any problem or that worked successfully, the author looked at the data in the diary to see if she had stated any reasons why she decided to adopt a particular procedure (see 5.3.3.: the Effect of Teaching). The data from the teacher diary also reflected the class atmosphere and the author's feelings.

10. Classroom Observation

The use of observation to collect data has been emphasised in classroom research. Good and Brophy (1987: 540-546) think that the major goal of classroom observation is to increase teacher awareness and effectiveness. In second language acquisition research, observations are often used to collect data on how learners use language in different settings, to study language learning and teaching processes in the classroom, and to study teachers' and learners' behaviours. The main use of

observations is for examining a phenomenon while it is in process (Seliger and Shohamy, 1989: 162).

The author used classroom observation to see if the teaching process had any effect on the outcome of the RLTP or not as the fieldwork was conducted in the normal class and it was a part of the teaching process. All the lessons conducted by the author were videotaped. The author chose the lessons which involved the activities aimed at developing learner autonomy such as preparation for the self-study in the SALL (see Table 3.1.: Psychological Preparation) to be viewed by another colleague; the observer had to answer the questions on the observation sheet while viewing the videotapes. The observer was the lecturer who taught the course 'Teaching Techniques' in the MA programme run by the Department of Applied Linguistics. Therefore, she is familiar with classroom observation which is a part of the MA students' teaching practice.

The classroom observation was designed to be a semi-structured observation, i.e. the author had determined in advance what to look for in the observed context but the questions asked in the observation sheet required the observer to describe the context based on her impression (Seliger and Shohamy, 1989: 162-165). It was hypothesised that the teaching process might affect the outcome of the activity, which would in turn affect the effectiveness of the RLTP. Therefore, the aim of the observation was to see how well the author could handle the RLTP activities, the questions asked in the observation sheet focused on the clarity of the instructions, interaction between the teacher and the students, the students' reaction, etc. (see the observation sheet in Appendix B). The data obtained from the observation were checked against the data obtained from the teacher diary in order to illuminate the classroom process more fully (see 5.4.3.: The Effect of Teaching).

11. Student Interviews

Seliger and Shohamy (1989: 166-167) see the advantage of using an interview as a research instrument as permitting a level of in-depth information-gathering, free response and flexibility which cannot be obtained by other instruments. The interviewer can probe for more information when the nature of the data is not predetermined. However, the interview also has the disadvantages that it may be subjective or it may cause personal bias. In second language acquisition research, interviews are used to collect data on the learners' attitudes and motivation for learning the second language. They are also used to obtain data about strategies which language learners use to produce and acquire language in different contexts such as the studies conducted by Naiman et al. and Fernandez-Toro and Jones (see 2.2.2.).

Generally, interviews are divided into structured, semi-structured and unstructured. The structured interview is like a questionnaire in that the questions are specified in advance but it allows the interviewer to seek clarification in a limited way. The semi-structured interview has a structured overall framework but it is flexible enough for the interviewer to probe further. The unstructured interview is like a natural conversation; the direction of the interview follows interviewee responses (McDonough and McDonough, 1997: 182-184).

In this research study, the author conducted semi-structured interviews in Thai with all the students after the post questionnaires were distributed in order to investigate whether the students were aware of psychological and methodological preparation provided in LNG 101 by getting feedback from the students on factors that might affect the development of students' learner autonomy and their behaviours that could not be revealed from other instruments. Since the students did not keep a record of the outside class activities they engaged in (see pp. 150-151), the author used this interview to probe for more information. The interview questions were as follows:

1) Do you think learning English in the university is different from learning in high school? In what aspect?

2) Do you like the freedom or opportunity to make decisions about the learning process which was provided by the teacher?

3) Do you think the teacher (i.e. the author) gave you an opportunity to work in your own way while doing the task or did she give too many suggestions? (This might affect the development of students' learner autonomy).

4) Did you use the SALL in the past semester? If you did, what did you do? How often did you use it?

The student interviews were audio-recorded. Then the author transcribed the tapes and translated the transcription into English.

12. Teacher Interviews

The semi-structured interviews were conducted with eight full-time experienced teachers who taught LNG 101 at the same time as the author. The author excluded the teachers who had less than two years teaching experience and/or were part-time. The interviews were conducted in Thai to find out the common practice of the teachers who had been exposed to the concept of learner autonomy from the training and seminars provided by the School of Liberal Arts (see 1.1.5.). The information was used to establish how the RLTP was different from the OLTP which they taught. Therefore, this instrument was not directly used as a research instrument to obtain the data to explain the students' change of attitudes and behaviour after they had been exposed to the RLTP. It was employed to obtain the data related to the RLTP. The interview questions were piloted with a colleague who is now studying in Britain to see if they did probe the classroom teaching process satisfactorily.

To conduct the interview, the author gave these teachers the questions in advance so that they had time to think about what they did when they taught LNG 101. The questions were: 1) When the students did the project and they had problems such as how to find a topic, did you help them choose the topic? How did you help the students to find the topic to do the project?

2) Before the students started to do the project, what did you check and approve? Was there anything you did not agree with them? If both parties did not agree with each other, how did you come to a conclusion?

3) What do you think the students needed in order to do the project successfully? Did you give any preparation to the students before they did the project? If you did, what did you do?

4) Did you change the final task of each unit? If you did, why did you do this and what did you change?

5) While doing the task in class, did the students ask for help? How did you help them?

6) How did you check students' work and give feedback to them? If the students did not agree with you, what did you do to reach a conclusion?

7) Did you involve the students in the teaching process? If you did, how did you do this? (an example of involvement in the teaching process is self-correction. An example was given when the interviewee did not understand the question).

8) At the beginning and end of each unit, did you talk about the objectives of that unit? If you did, how did you do this in order to help the students understand the objectives of the unit?

9) Did you teach reading or listening techniques in class? If you did not teach these techniques but let the students use their own techniques, did you raise the students' awareness of the use of them (such as discussing with the students at the end of the task)?

10) How did you use the SALL in LNG 101? When you did the orientation of the SALL, what did you cover?

The interviews were audio-recorded and transcribed before the data was analysed.

4.2.3.2. Problems Arising from Data Analysis Resulting in a Change of the Research Design

After analysing the data obtained from the fieldwork, the author had found some problems which brought about a change in the design. The first problem arose from the results of the statistical data of the pre/post questionnaires which indicated that the students attributed their success and failure to the teacher/author; this finding contradicted the objectives of the RLTP which aimed at helping the students to be more self-directed in the learning process. Therefore, it was necessary to investigate further whether this apparently teacher-dependent attitude arose from the process of helping the students to develop learner autonomy or whether it arose from the English language learning context where the students might feel frustrated from having to do tasks that they were not familiar with. This problem also raised the issue of learning style; providing learner autonomy might not suit the learning styles of some subjects.

The second problem was related to the students' transfer of what they had learned from the RLTP to other learning contexts. The data from the pre/post questionnaires was based on the English language learning context; therefore, it would be better to investigate the students' attitudes towards learner autonomy and their behaviour that indicated their self-directedness in another English language learning context in order to see how the students transferred what they had learned from the RLTP. Therefore, the author had to change the original research design by adding more areas to be investigated and extending the follow-up study to include the first stage of the follow-up study which was conducted in the semester following the RLTP.

4.2.3.2.1. Adding More Areas to Be Investigated

As discussed in 4.2.3.2. that the students' learning style was hypothesised to have an effect on their development of learner autonomy because the students seemed to depend on the teacher/author at the end of the RLTP, the author decided to include the investigation of students' learning style in the research. Students' approaches to learning was the area that the author was interested in because the concept of approaches

to learning includes learning style, the effect of the learning context and effective learning (see 2.2.1.). The RLTP had an influence on the learning context because the author attempted to provide a learning environment which promoted the students' self-determination. Because the investigation was conducted one year later than the time when the subjects were taking LNG 101, the subjects had to think back to what they did while taking LNG 101; however, the data was able to indicate the effect of the RLTP on the students' approaches to learning while taking LNG 101 (see 5.4.).

Research Instrument - ASSIST

In order to investigate the students' approaches in learning, the author chose to use the short version of the Approaches and Study Skills Inventory for Students (ASSIST) prepared by the Centre for Research on Learning and Instruction, University of Edinburgh. The inventory was devised for use in higher education contexts and one of the aims of the inventory is to investigate the ways in which the teaching influences students' learning (Tait et al., 1997: 8). The data obtained from ASSIST would reveal the subjects' approaches to studying English and the effect of promoting learner autonomy on their learning approaches. The inventory was implemented with the original subjects who were now studying in their second year and with representatives of the current first year Engineering students at the time of the follow-up study in order to compare those who were exposed to the RLTP and those who were not with reference to the adoption of the deep approach. The comparison between the data of the two groups would reveal if the original subjects and the first year Engineering students used different approaches in studying LNG 101. The data would be able to indicate the teaching/learning context these two groups were exposed to and reveal the students' learning behaviour.

Preparation of the Instrument

The author used the whole inventory, which contained 52 items constituting 13 subscales and three main scales (i.e. deep approach, strategic approach and surface apathetic approach). The author translated the inventory into Thai and piloted the

translated version with 30 first year Engineering students at King Mongkut's Institute of Technology, North Bangkok (KMITNB) to see how they would cope with ASSIST. The pilot was conducted at KMITNB because the author wanted to pilot the questionnaire with a group that was not involved with LNG 101. KMITNB is like a sister university of KMUTT. The students are at the same entry qualification.

The feedback from the pilot session was mainly about the ambiguity of the language. This helped the author to make some items in the inventory clearer by giving examples to make the statements more relevant to the context of LNG 101. The inventory was prepared in two versions: the one given to the subjects was written in the past tense in order to avoid confusion as the subjects had to think back to the time when they took LNG 101 and that given to the first year students was written in the present tense (see Appendix B).

4.2.3.2.2. Extending the Follow-up Study

In the original design, the author had planned to collect the data at two stages: the fieldwork and the follow-up study which would have been conducted when the students no longer studied English, i.e. Stage 2 in the follow-up study of the current design (see 4.2.2.). Thus, the students' transfer of what had been learned in the RLTP would have been investigated in relation to other learning contexts only. However, the findings about students' attitudes towards learner autonomy and their use of metacognitive strategies obtained from the pre/post questionnaires were specifically related to the English language learning context. Therefore, it would be beneficial to investigate if the students still had the same attitudes towards learner autonomy and were able to transfer the skills they had learned from the RLTP to another English course where the learning context was not completely different from the context of LNG 101. Thus, the author further investigated the students' behaviour while they were taking an English elective course in the second semester. The aims of the investigation at this stage were to:

a) discover the students' reflective views of the RLTP prior to the beginning of the elective courses (LNG 102, 103 and 104), two months after the RLTP was completed in order to gain data to support the findings obtained at the end of the RLTP.

b) estimate the effect of the RLTP by looking at the students' attitudes to independent learning and their performance in another English language learning context.

c) discuss if the students used metacognitive strategies to deal with the English tasks they engaged in.

4.2.3.3. Follow-up Study

This section describes the data collection process in Stage 1 and Stage 2 of the follow-up study. The description covers the context of the study of each stage and the data collection which involves research instruments, i.e. their aims and how they were used. The data collected in the follow-up study was mainly qualitative.

4.2.3.3.1. Follow-up Study: Stage 1

This phase of the investigation was conducted four months after the end of the RLTP mainly in order to find out about the students' transfer of what they had learned in the RLTP to another English language learning context. The investigation also examined the students' attitudes towards English language learning and towards the RLTP through having the students compare their attitudes to another university English course in order to discover if the students really perceived that they had had freedom in the learning provided in LNG 101. Normally, university studies are more flexible than those in the secondary school level. Therefore, the author did not investigate the students' attitudes towards freedom in learning when they studied LNG 101 because the students would compare it with their English learning experience in the secondary school and the findings might not be useful.

The English course in the second semester was an elective course; the students were able to choose one out of three courses provided by the Department of Languages.

Not all of the subjects took an English course in that semester; those who did not have good grades in the first semester tended not to take an English course. Therefore the data from this stage was obtained from 22 TME students and 25 ME students or 80% of the original samples. At that time, the researcher came back to Britain; so, she asked a colleague to conduct the semi-structured interviews for her. This colleague also conducted the classroom observation in the fieldwork, so she knew about the RLTP and would be able to probe or to modify the questions if they were not clear to the students.

• Context of the Study

This section describes the content of the three elective courses by focusing on the elements of learner training because the students would be able to demonstrate their self-directedness in these aspects.

Basic Study Skills (LNG 102) aims at helping the students to learn systematically in the university where they are required to take lectures and to search for more information on their own in addition to studying in class. The students are taught how to take notes, summarise, plan their individual study schedules, i.e. the skills that enable them to cope with the study in the university successfully. The course also aims at raising the students' awareness of the learning process, e.g. drawing the students' attention to the learning objectives of each lesson, having them analyse their problems, etc. The students have to do a project which requires them to use metacognitive strategies that are taught in class to finish it. The content of the course is general English. Since this course deals with learning how to learn which was emphasised in methodological preparation in the RLTP, it was expected that the students who went through the RLTP might be able to use appropriate metacognitive strategies to deal with the tasks.

Communicative Writing in EST (LNG 103) focuses on grammatical structures used in technical writing. The teaching and learning emphasises the correct use of the language patterns taught in each lesson. The learner training in this course is conducted

in a limited manner through training the students to be able to self-correct their own work. In doing self-correction, the students have to be able to analyse their mistakes and know how to change them. This process is done through the use of journal writing which aims at enabling the students to practise writing and self-correction. To do the journal writing, the students can write about any topic they want and then hand in their work for the teacher to read. The teacher reads it, marks the mistakes without correcting them and returns the work to the students. Then the students analyse the mistakes, correct them and hand in the corrected version to the teacher. Since this course focuses on grammar, the teachers normally encourage the students to use the materials provided in the grammar section in the SALL to practise the use of grammatical structures that they are weak at. This encouragement is regarded as a way of promoting independent learning. In the RLTP, the author introduced peer-assessment and peer-correction which involved the students in analysing the grammatical mistakes their friends made and correcting them; therefore, it was expected that the subjects would perform well in the journal writing or class discussion where they were required to analyse the grammatical mistakes and correct them. In addition, it was expected that the students would use planning skills when doing the group work tasks as these were emphasised in the RLTP.

Basic Reading in EST (LNG 104) aims at teaching the students reading strategies. Then the students are required to apply the strategies they learn in class to do supplementary reading in the SALL by using the SRA materials. These commercial materials are published by Science Research Associates (SRA). In the SRA kit, the reading passages are graded by using colour coding according to level of difficulty. Each level has a variety of topics. The kit provides a test for the users to check their reading ability so that they are able to choose the materials suitable for their ability. To work with the SRA kit, the students can choose the reading passage to work at their own pace and preference and they can check the results of the tasks from the answer keys provided. The SRA kit aims at encouraging the students to improve the reading skill on their own. In LNG 104, the students are required to complete 16 SRA tasks within two months after they finished classes on reading strategies which were carried out in class.

While doing the SRA in the SALL, the students have to work independently with the presence of the reading teacher in case they need his/her reassurance or help. At the last stage of the course, the students have to do a group work task, i.e. choose a reading passage and write a test from that passage. The LNG 104 activities are designed to promote students' independence from the teacher. For instance, the requirement for the students to work with the SRA kit gives an opportunity for the students to work on their own. The group work task enables the students to make decisions and to use metacognitive strategies to complete the task. Since the activities in this course require the students to be self-directed both in doing the SRA work and the group work task, it was expected that the students who had completed the RLTP would undertake those activities well.

In general, it was expected that after going through the RLTP, the students would work more systematically and do more planning in their learning both in class and when they did the project work or a group work task. It was also expected that the students would be more self-directed in class through knowing their problems and trying to solve the problems by themselves. They would show their independence from the teacher as they had learned how to use other resources to get the information they needed. For the tasks that needed self-monitoring and self-evaluating, it was expected that the students would perform relatively well because they were trained in these two skills in the RLTP. In addition, since the students were encouraged to undertake self-study and they had positive attitudes towards this learning mode, it was expected that the students would still use the SALL voluntarily in the second semester. It was also expected that the students' increase in motivation to learn English would affect their performance in following another English course.

Data Collection

In this stage, data was collected from student interviews, teacher interviews and the data from the record sheet used in LNG 102, which was intended to reveal how the students employed metacognitive strategies. The following section describes each instrument in details.

1. Student Interviews. The author sent the questions and the rationale behind each question to her colleague in Thailand. The questions used in the interviews were formulated from the findings obtained in the fieldwork. The interviews were semi-structured and were conducted in Thai. The table below explains the aims and the questions used in Stage 1 of the follow-up study.

Aim	Questions
1. to obtain the students' reflective views with	-What were your opinions about English language
regard to their attitudes towards English language	learning after you finished LNG 101 and before you
learning after they had been through the RLTP.	took the English course in the second semester?
2. to see whether the students perceived the freedom	-Do you think the atmosphere of the English class
to learn which had been provided in LNG 101 as	you are currently taking is different from that of
comparable to/different from that of English class	LNG 101? Which aspects are different? What
they were taking at that time.	makes these aspects different? (these questions are
	the starting points leading to the concept of freedom
	in learning. The interviewer would bring in the idea
	of freedom in class if the students do not mention it)
3. to see how much the students needed the teacher	-What do you need a teacher in your learning for?
in their learning in order to find out how the	
students depended on the teacher.	
4. to see whether the students showed their self-	-When you have problems in learning English, what
directedness in solving problems they had in their	do you do in order to solve the problem?
English language learning.	
5. to see whether the students showed their self-	-Do you still come to use the SALL? Please give
directedness through the voluntary use of the SALL.	reasons for using or not using it.
6. to see if the students continued to use	-Do you use metacognitive strategies in the English
metacognitive strategies in their learning in the	course you are taking? Please describe how you
English class.	deal with a certain English task.

Table 4.2: Questions Used in Stage 1 of the Follow-up Study

2. Teacher Interviews. The interviews were conducted with the four teachers who taught the subjects in the second semester by the same colleague who conducted the student interviews. The purpose of the interviews was to find out about the subjects' behaviour; if they performed differently from the other students in the same class who did not undergo the RLTP. Before the author came back to Britain, she gave the list of the subjects to the teachers who would teach them in the second semester so that the teachers were able to observe the subjects' behaviour. The author emphasised self-directed behaviour, e.g. how they dealt with the problems, how well they planned in learning, whether they were able to analyse learning objectives, etc. The questions were:

- Were the subjects active in class (such as asking questions, giving opinions, etc.)?
- 2) To do the task in class, did they do any planning or did they try to help themselves by bringing a dictionary to the class and using it?
- 3) When doing the task in class, what did they generally ask you for help in (such as asking about vocabulary, checking instructions, asking you to check if they were on the right track)?
- 4) For the teacher who taught LNG 102 which contained the tasks which involved the use of metacognitive strategies, do you think they performed well in the tasks that required them to set objectives and plan their learning?
- 5) For the teacher who taught LNG 103, when they had to do peer-correction in the feedback sessions or self-correct the mistakes in their diaries, did they perform well? Did they show interest in the self- and peer-correction tasks?
- 6) For the teacher who taught LNG 104, when the subjects did the SRA, which required independence from the teacher, did they perform well? What questions were they likely to ask you? Were they good at working in groups?

3. The LNG 102 Record Sheet. In LNG 102, the students were required to keep a record of the activities that they carried out both in the English class and outside class

in order to improve their English. The students were required to record in English information about how many activities they engaged in, the date they engaged in the activity, the type of activity which was recorded in terms of language skills (listening, speaking, reading and writing), the student's own comments and the teacher's comments (see the LNG 102 record sheet in Appendix B). The information from the record sheet was obtained only from the subjects who took LNG 102 in the second semester.

4.2.3.3.2. Follow-up Study: Stage 2

This section covers the details of Stage 2 of the follow-up study by describing the context of the study and data collection which was the investigation of the students' transfer of what the subjects had learned in LNG 101 to other courses by using semi-structured interviews. In addition to conducting the follow-up study, the author implemented ASSIST to obtain additional data on the effect of providing learner autonomy (see 4.2.3.2.1.). The author went to Thailand to conduct the study herself.

• Context of the Study

Stage 2 was conducted one year after the RLTP was completed when the subjects were studying in their second year in the university and were not taking any English course. Some of the subjects dropped out from the university. Thus, the data was obtained from 21 TME students and 27 ME students or 81% of the original samples.

• Data Collection

The main research instrument employed in Stage 2 was student interviews. The interviews aimed at investigating whether the students transferred what they had learned from the RLTP to their engineering studies. The author also investigated factors that might contribute to the students' self-directedness in doing engineering studies, e.g. the reasons why they engaged in self-study. The table below explains the aims and the questions used in Stage 2 of the follow-up study:

Aim	Questions
1. to see whether the students thought that having characteristics of autonomous learners, e.g. being	1.What qualities are needed to be successful in studying engineering?
independent, knowing learning objectives, was	2. Do you think it is important to know the
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important for their study.	objectives of what you are studying? Why is it
	important? Do you know the objectives of every
	course you are studying?
2. to see whether they had teacher-dependent	1. In a university learning situation, what do you
attitudes.	need a teacher for?
	2. In engineering studies, how do teachers give
	feedback on your work? Do you need the teacher's
	feedback on your work all the time or is having the
	keys to the exercises enough?
3. to see whether the students engaged in self-study	1. Have you done any self-study? In which subject?
and for what reasons.	How often do you involve yourself in self-study?
4. to see whether the students were self-directed in	1. After you are assigned to do a certain task, when
their study; i.e. knowing their weaknesses and	you have a problem, how will you solve it?
trying to solve problems by themselves.	2. Do you know your strengths and weaknesses in
	your study? What are they? How do you know
	them?
5. to find out if the students' learning goals had an	1. Do you have your own goals in learning? What
effect on their behaviour?	are they?
6. to investigate the students' perception of the	1. What do you think you learned from LNG 101?
RLTP and whether they could apply what they	How have you applied it to your engineering
learned from the RLTP in their engineering studies.	studies?
7. to investigate whether the students still used	1. Do you normally use metacognitive strategies in
metacognitive strategies in their learning.	your learning?

Table 4.3: Questions Used in Stage 2 of the Follow-up Study

4.3. Data Analysis

The analysis of the data focused on the change in the students' attitudes and behaviour after they were exposed to the RLTP. This section describes the methods of analysing the data obtained from the fieldwork and the follow-up study which will be presented in Chapter 5. The instruments that did not yield much data such as the outside class activities record sheet and the worksheets on planning monitoring and evaluating will not be discussed (see 4.2.3.1.). The discussion covers the use of triangulation technique to increase the validity and reliability of the data. How to handle the quantitative data such as employing statistical tests, and how to handle the qualitative data such as doing content analysis with the data from the interviews are also discussed. The details of the discussion on the data analysis of each research instrument depend on the complexity of the process of the data analysis.

4.3.1. Triangulation

In this research study, the data from different sources was used to check against each other in order to reveal different perspectives. For instance, data on the students' motivation to learn English was obtained from both the student and the teacher interviews (see 5.2.).

The investigator triangulation was used to increase the validity and reliability of the data especially the qualitative data. The technique gave more confidence in dealing with highly subjective data such as those obtained from the teacher diary (see 5.3.3.: The Effect of Teaching). It was also used in the data analysing process; the author invited an evaluator to mark the learning plans with the author so that the scores of the tasks which indicated the students' development would be more reliable (see 4.3.2.). Another type of investigator triangulation was the use of an inter-coder to check the data from the interviews in order to see whether she agreed with the categorisation of the data from the interviews; this technique aimed at increasing the reliability of the data (see 4.3.3.).

4.3.2. Quantitative Data

The quantitative data which was used to discuss the findings in Chapter 5 was obtained from the pre/post questionnaires, the questionnaire asking about students' experience of learner autonomy, ASSIST, the checklist of strategies the students used to handle language tasks, and the learning plan. The quantitative data was analysed as follows:

1. Pre/post Questionnaires

The comparison between the data from the pre questionnaire and those from the post questionnaire was done by using the Wilcoxon Matched-Pairs-Signed-Ranks Test because the rating scale used in the questionnaires was considered a nonparametric technique (Hatch and Lazaraton, 1991: 297-300).

2. Questionnaire Asking about Students' Experience of Learner Autonomy

The data obtained from the questionnaire showing the students' prior experience in learner autonomy was converted into percentages.

3. Checklist of Strategies the Students Used to Handle the Language Tasks

The number of the students who ticked the metacognitive strategies they used to handle the language tasks was counted.

4. ASSIST

Factor analysis was carried out to examine the patterns of the main factors, i.e. the deep approach, the surface apathetic approach and the strategic approach. Cronbach's alpha was computed to measure the degree of internal reliability. Then the Mann Whitney U test was used to compare the subjects and the representatives of the first year students.

5. Learning Plan

Although the data from learning plans was qualitative, i.e. the students had to fill in their learning objectives, activities, criteria for evaluating their performance and so on, the author analysed them by quantifying them in order to facilitate the triangulation process (see 4.3.1.). To find out whether the students improved in planning their learning, the author set up criteria to evaluate the students' learning plans by giving a numerical value to each category so that the comparison of the learning plans would be more concrete. To increase the reliability of the evaluation, the author invited another evaluator to evaluate the student learning plans by using the author's criteria. The evaluator was the colleague who was studying for a PhD in Applied Linguistics at the University of Essex. She had taught LNG 101 and had also taught LNG 102, which focused on planning. Therefore, she was well aware of the constraints of the students in setting up their learning objectives and understood the rationale of the learning plans.

There were five areas to be looked at in the learning plans: learning objectives, activities that the students would do to reach the objectives, materials they would use, the timescale of working in order to reach the objectives, and finally the criteria to evaluate if the objectives had been achieved. The criteria for evaluation were as follows:

Learning objectives: it was necessary to consider the specificity of the objective in terms of:

a) skills the students wanted to work on such as listening, speaking, reading, writing, grammar, etc.

b) areas that the students wanted to improve such as fluency, accuracy or comprehension. Looking at the specificity of the objective could help the students to select the right materials to work on as well as to think about the criteria to evaluate their performance. In addition to specificity, in the second learning plan, improvement of stating learning objectives was evaluated in terms of its relevance to students' problems. For example, the student who mentioned his/her problem in writing was expected to specify his/her learning objectives in relation to writing. Learning objectives were also

evaluated in relation to the quality of the overall plan, i.e. if the plan was realistic or not. Numerical values were allocated as follows:

3 = stating specific areas to work on and indicating that the objectives set could be achieved in one semester when they were taking LNG 101. For example, those who said '*I would like to improve listening in the lab*' would get 3 because they specified listening in the lab which they were required to study in LNG 101 was the area they wanted to work on. Mentioning listening in the lab was regarded as a specific objective because the listening materials similar to those used in the listening lab were available in the SALL.

2.5 = stating specific areas but the objectives were too many to achieve in one semester such as those who stated '*I* want to understand the teacher in class, be able to talk to her in English and to write sentences in English' Although there were three areas the students wanted to work on, they were specific enough for the students to evaluate their improvement in one semester.

2 = the objectives were broad but feasible. For example, those who stated 'I want to be good at listening and communicate by speaking' would get 2 because it was rather broad when they said 'listening'. More specific goals might be listening to authentic English when they watched movies, listening to simplified English that the teacher used in class, or listening to the passage read out for listening exercises. However, such an objective was feasible in that any material that the students chose to work on would be relevant to the improvement of their listening skill. As for the speaking skill, it was easier to plan an activity to practise because the context where the students could use English was mostly in class.

1.5 = the objectives were broader than 2 but still had some focus. An example of the objective that would get 1.5 was '*I want to improve listening, speaking, reading and writing so that I can use English better in daily life*'. It was too ambitious to improve all

four skills within one semester but the students did focus on English used in daily life. They might think about the language used in class as an example of this.

1 = the objectives were too broad; there was no focus; such as '*I* want to be better at *English*.' There were a lot of things they needed to do in order to be better at English. Such an objective implied that the students did not analyse their weaknesses well enough.

Activities were evaluated in terms of suitability, specificity and relevance to the objectives set. In evaluating activities, the author also looked at the objectives of the plan to see if the activities could help the students reach their objectives or not. Numerical values were allocated as follows:

3 = all the activities were specific and suited the objectives. For example, in order to improve listening, the students who stated '*Listen to tapes of conversation in the SALL 3 hours/week*' as an activity to improve listening would get 3 because the activities they designed were relevant to the objectives and practical for them.

2.5 = the activities were relevant to the objectives but not totally specific. The students who wanted to improve their listening in the lab might say that they would listen to English passages when they had time. In this case, the students were not specific enough about the time allocated for the activities. The activity was too broad but the students could only deal with activities they knew about. Therefore, the author accepted such an answer as relevant enough to the objective set.

2 = the activities were relevant to the objectives but did not serve all the objectives set. For example, the students might want to improve speaking and reading skills but they stated activities for reading only. 1.5 = the activities were stated too broadly but were still somewhat relevant to the objectives. For example, those who stated that '*I want to be able to use English in my work after graduation*' and planned the activities as '*reading and listening in the lab*' would get 1.5 because the activities were very broad; the students did not specify what kind of reading or what kind of listening and they were required to do listening practise in the lab anyway. However, since the objective was stated very broadly, any activity to improve their English was somewhat relevant to the objectives.

1 = the activities stated were not specific or not relevant to the objectives. For example, the students who stated '*I want to be able to use English in daily life*' as their objective and planned their activity as '*study in class with the teacher*' would get 1 because the activity was too general and not sufficiently focussed.

The timescale of the learning plan was evaluated in relation to the activities and the objectives. The feasibility and specificity of the timescale were looked at. The numerical values allocated were:

3 = the time allocated for each activity was specific and feasible such as 'listen to the tapes in the SALL - 4 hrs/week.'

2.5 = the time allocation was feasible but not specific enough such as 'listen to the tape – once a week, practise writing – once a week, practise speaking – once a week'. It was feasible because the students had to allocate the time for 3 activities. However, once a week was not specific enough to know if the overall time they allocated for the three activities was too much or too little.

2 = the time allocated showed that students knew how much they wanted to spend on a certain activity but it was not specific enough such as 'practise writing in the diary – when the teacher gives the diary back or read in the SALL – when I go to the SALL (a few times/week).' The allocated time showed that the students tried to find time to

practise English but they could not specify how much they would spend for each activity.

1.5 = the time allocated was stated too broadly such as 'reading - 4 months (the whole semester when they took LNG 101)'.

1 = the time was very vague such as 'when I have time'.

The Materials the students chose to use in order to achieve the objectives were also evaluated in relation to the activities. Specificity and suitability were looked at. The numerical values allocated were as follows:

3 = materials were suitable for the objectives and they were specific enough such as *'listen to Follow Me* (the programme used for teaching listening and speaking).

2.5 = materials were suitable but not specific such as 'watch soundtrack movie.'

2 = materials were stated specifically but did not cover all the objectives set; the students might state two or three objectives but they did not state the materials that covered all the areas they wanted to work on.

1.5 = materials were described more broadly than 2. The author would see whether the materials covered all the objectives or not and then see if the materials were broad or not. Therefore, *'listen to anything in English'* was considered too broad.

1 = materials were described broadly and sometimes they were not relevant to the activities set. There were students who wanted to improve speaking but listed reading materials instead.

Evaluating Criteria was judged by looking at their relevance to and suitability for the objectives and activities. The numerical values are:

3 = the criteria were stated specifically and covered all the points stated in the objectives and the activities. For example, if the students stated that they wanted to improve listening, they might state the criteria as *'understand passages and do the listening tasks in the lab better*' because understanding the passage better and doing the exercises more correctly could indicate their improvement in listening skills.

2.5 = the criteria covered all the points stated in the objectives and the activities but they were not stated specifically such as '*being able to understand soundtrack movie better*.' This was a very subjective criterion. Therefore, it was difficult to measure students' improvement.

2 = the criteria covered some but not all points stated in the objectives and the activities and they were stated specifically. For example, the students might state improving listening and speaking skills but they specified only the criteria for the improvement of listening skills.

1.5 = the criteria covered only some points stated in the objectives and the activities but they were stated broadly. A typical answer would be '*understand to some extent*.'

1 = the criteria were not relevant to the objectives or the activities.

The main scores were 1, 2, and 3. The author included 1.5 and 2.5 as compromising scores when the answers of the students did not fit the main scores.

The author and the evaluator evaluated the learning plans separately by using the same criteria. Then the scores were compared and discussed when there was a discrepancy. The discrepancy in the evaluation ranged from 10% to 32%; the

percentages were converted from the number of the students for whom the author and the evaluator gave different scores. A high discrepancy in evaluating students' learning plans seemed to indicate the subjectivity of the process of evaluating the students' learning plans. This indirectly suggested that it would have been more useful to teach the students how to plan if the focus of learner training had been on planning effectively rather than evaluating how well the students made plans. It also suggests the use of learning plans as a pedagogic tool where the students can plan according their needs and try to achieve the objectives without the judgement from the teacher on how well they are able to plan their study. Measuring the discrepancy in the learning plans evaluation is presented in Table 4.4.

Table 4.4: Measuring the Discrepancy in Learning Plans Evaluation

Category	Learning Plan 1	Learning Plan 2
1. Learning Objectives	28%	32%
2. Activities	28%	24%
3. Materials	30%	28%
4. Timescale	14%	10%
5. Evaluating Criteria	22%	20%

When there was the disagreement, the author and the evaluator discussed each case by giving reasons for their marks and then talking about how to adjust and/or finalise the marks and then by comparing the marks about which they disagreed with the same marks given to other students in order to decide the final marks. The disagreement mainly arose from the subjectivity of the task. Although the author tried to reduce the subjectivity by setting up the criteria, the process of judging practicality and specificity was still subjective. The area in which most disagreement arose of was *learning objectives in learning plan 2*; it was very subjective to evaluate how realistic the students' learning objectives were; at the same time there was a problem in judging whether their new learning objectives indicated their trying to solve the problems in the first learning plan. *Materials* was another area that brought out high disagreement because it was not only the matter of appropriateness that counted, sometimes the

consideration of the students' knowledge of available materials also played a role in the decisions to give marks.

4.3.3. Qualitative Data

The qualitative data was obtained from the student and the teacher interviews, the teacher diary, the classroom observation, and the proforma asking about advantages and disadvantages of independent study. The qualitative data was handled in three ways:

- For the data which was used as supporting data such as the data from the proforma, the author listed a variety of answers to show the students' opinions and/or to exemplify the explanation.
- 2. The relevant extracts of classroom observation and teacher diary were taken to support the data from the other instruments in order to explain the effect of the instructions on the outcomes of the RLTP (see 5.3.1.).
- 3. The data from teacher interviews and student interviews was analysed by using content analysis. The strategy the author used in doing the content analysis was conceptual analysis. By definition, a conceptual analysis is 'determining what words or concepts are present in a text or set of texts.' (Carley, 1994: 726). The author transcribed the interviews, interpreted the words/expressions which were not clear, i.e. extracted both explicit and implicit concepts and classified the themes. The data from the student interviews, which was obtained three times, at the end of the RLTP, at Stage 1 and at Stage 2 of the follow-up study, was treated differently. The student interview data which was obtained at the end of the RLTP was used as supporting data. Therefore, the author triangulated it with other instruments in order to reveal more information about the subjects. The author did not use an inter-coder to check the interview data obtained at the end of the reveal more information about the subjects.

RLTP. The student interview data obtained at Stages 1 and 2 of the followup study was used as main findings in the follow-up study. Thus, the author used the inter-coder to help analyse the data in order to increase the reliability of the data (see 4.3.1.). The procedure of involving the inter-coder to help analyse the data will be discussed in a later section (see pp. 186-187).

• Content Analysis

This section shows an example of the content analysis process of the student interviews in Stages 1 and 2 of the follow-up study. In Chapter 5, the whole data from the student interviews is not presented; the author gave a few examples of the students' responses. Therefore, this section aims at giving a clear picture of how each category was derived from the content analysis process.

To establish the categories, the author started from the main category which was broader and moved to the sub-category which was under the main category but narrower than the main category. The sub-categories provided more information to explain the main category. The process of content analysis is as follows:

1. The author first set up the main category which was broad by looking at key words in the responses which indicated the students' attitudes such as 'like, enjoyable'. Then, the main category which was 'like, enjoy learning English' was established. The first sentence of the response tended to present the main theme of the response when the students used many sentences to express their opinions. There was no problem of categorisation if those sentences were under the same theme such as 'I like learning better because LNG 101 was enjoyable. The teacher was friendly. She gave us choices in learning.' This example indicated that the student liked learning because of the teacher' having rapport with the students and providing choices in learning. The problem arose when the students expressed more than one idea such as 'I want to learn English more because I had more understanding of it. I enjoyed studying it more.' The author put this sentence under the category 'wanting to learn English more' because

although the student mentioned his enjoyment of the class, his first two sentences were about his wanting to learning English more. This indicated that the main theme of his response was '**wanting to learning English more.**'

2. After the main category was set up, the author established a sub-category by looking at the reasons the students gave. The author grouped the reasons which were more or less the same together. For example, the students' mentioning of the teacher such as 'the teacher explained when we had mistakes, the teacher was friendly' was listed under the same category, 'like English because of the teacher.'

3. The author used phrases to indicate the general theme of either the main category or the sub-category in order to make the presentation concise. For example, **'language attainment'** includes any response which referred to the students' having more knowledge of English, understanding English more or their improvement in English.

The author presented the interview data by showing the category, quotations and number of responses. Category contains the main theme and the sub-categories which give more details about the main theme, e.g. reasons for the main theme. Quotations are the full responses of the students. A few examples of the students' responses will be presented in the column *Quotations* in Chapter 5 but in Table 4.5. the author will present every student's response as an example of content analysis. Number of responses are the actual number of the students who responded to the question.

The table below shows an example of content analysis. The author will present every student's response and use bold type to indicate the words and/or expressions that represent the concept which was used to categorise the students' responses. The example came from 47 students responding to the question 'What were your opinions about English after you finished LNG 101 and before you took the English course in the second semester?'

Table 4.5: An Example of Content Analysis of Student Interviews about Their

Attitudes towards English Language Learning

Category	Quotations	Number of Responses
Like/ enjoyment of	'I like learning English better.'	25
learning English because		
of a) classroom climate	'I think learning English in LNG 101 was more enjoyable	
which came from	than when I did it in high school because I had more freedom.	
1.teacher	We did not have to follow strict rules while learning. When I	
-rapport with the	had any problem, I was able to consult the teacher.'	
students		
-providing guidance	'I liked learning English because it was enjoyable. I had the	
2.teaching/learning	chance to think. My English was better. The teacher	
-group work	encouraged us to think, write and speak out.'	
-freedom in learning	A think because Function was a minuted. The teacher	
-having the chance to	'I think learning English was more enjoyable. The teacher	
make decisions in	explained when we made mistakes. I like working in groups	
learning	because that gave us freedom in learning.'	
-being able to work on	I dish have be for the barrier and and the barrier is	
their own	'I think learning English was more enjoyable because it was	
b) the students'	different from what we had learned in high school. I liked the	
perception of learning	way the teacher let us make decisions in learning. I was not	
taking place	afraid of making mistakes because the teacher was there to	
	give suggestions. We had more freedom while working in	
	groups. I like group work because we were able to share our knowledge.'	
×	'I liked English better because the teacher took good care of and was interested in all of us. She was approachable. Whenever we had problems, we could ask her. I liked group work.'	
	I think up English has improved it was more anioughle to	
	'I think my English has improved. It was more enjoyable to learn English because the teacher created new attitudes to	
	learning English. It was fun doing different kinds of	
	exercises and working in groups. We were able to give our	
	opinions in class.'	
	'I liked English better because we had the chance to work in groups, to go to the SALL and to do the tasks that we had never done before. We had more freedom in learning.'	
	'I liked English a little better because the teacher gave us the chance to work in groups and to work on our own. She was not strict.'	
	'I started to like English better because LNG 101 focused	
	more on communication whereas the English courses I studied	
	in high school had focused on grammatical structures. I like	
	the way the teacher let us make our own decisions and work	
	in groups. She used the teaching aids which made the	
	learning more enjoyable.'	

'I'm not good at English but I was feeling good while taking LNG 101 because the teacher was taking good care of me. She allowed us to make decisions on our own. The class atmosphere was relaxed. It was an enjoyable class.'

'Learning LNG 101 was enjoyable. The teacher was friendly. She provided freedom in learning.'

'I like learning English because I understood what I was learning. The teacher let us work on our own'

'I like learning English better because the teacher made it more enjoyable. She paid attention to every student in class. She gave us more opportunity to make decisions in learning on our own.'

'I like learning English more than I did when I was in high school because I did not understand what I was learning when I studied in high school. When I studied LNG 101, the teacher let us work on our own and work in groups more. We had the chance to share our opinions and think on our own.'

'The class was more enjoyable because I understood what I was learning. I knew English better because the teacher let us work in groups and think ourselves.'

'I like learning English better because the teacher's teaching enabled us to understand what we were learning. She was very helpful.'

'I like learning English a little bit better because the teacher made the class interesting. She let us ask questions and gave us the chance to think on our own.'

'I like learning English better because LNG 101 was enjoyable. The teacher was friendly. She gave us choices in learning.'

'I had a good time learning LNG 101. I learned how to work in group. The teacher gave us choices when we did the tasks, which made the tasks more difficult.'

'I felt good when I studied LNG 101 because the teacher taught us well; she let us think and do the tasks on our own.'

'I had a good time when I studied LNG 101; I liked doing group work tasks because I was able to discuss and share opinions with friends.'

'I like learning English better because the teacher was approachable. She made the class atmosphere relaxed. We had more freedom to learn.'

	'I had better feeling towards learning English because the teacher was friendly. I had the chance to ask her questions when I did not understand what I was learning.'	
	'I like LNG 101 because the teacher gave us the chance to do self-study in the SALL.'	
Wanting to learn English more because of 1.achievement gained from studying LNG 101	'I want to learn English more because when I studied LNG 101, I had better understanding of what I was studying, I think learning English was interesting.'	5
2.having positive experience provided by the teacher	'I want to learn English more. I had more knowledge at the end of LNG 101. The teacher helped us to like English better because we had the chance to work in groups and to do the self-study.'	
12	'I want to learn English more because the teacher's teaching techniques made the class enjoyable. She let us ask questions when we had problems.'	
	'I want to learn English more because I had more understanding of it and I enjoyed studying it more.	
	'I want to learn English more because I had different attitudes to learning English. When learning English in high school, I had focused on memorising rules in order to pass the	
	exams. But the LNG 101 teacher taught us to think and do	
	the tasks on our own. She did not spoon-feed us.'	
Having good attitudes towards learning English because of language	'I understand English better. I like the freedom the teacher gave us.'	5
attainment	'I felt better because I understood what I was studying. The teacher had us do the tasks more often. The way she let us make decisions and give opinions enabled us to understand the language better.'	
	'I think I have more knowledge of the English language. I used to hate learning English. But I no longer hated it. It was because the teacher let us work on our own and then showed us the answers. She had us do homework and provided choices in learning. I had the chance to work with friends.'	
х.	'I think I had more knowledge of the English language. I was able to use it. The teacher taught us how to work and how to work together.'	
	'I think my English improved because I had more knowledge of grammatical structure. I like the way the teacher let us work on our own because we were able to show our ideas.	
Having more confidence to learn and use English	'I still think that English is difficult but I'm not afraid of learning English as I used to be.'	7
	'I think learning English was interesting. I was not afraid of	

1	it because I was able to write more in LNG 101.' 'I felt better at the end of LNG 101. I'm not afraid of studying English.' 'I think English is an important subject. If we pay attention to the subject, we can make use of it. I think learning English is easier.' 'Before taking LNG 101, I had thought that learning English was difficult. But after I finished the course, I realised that it	
	was not difficult if we knew how to deal with the language. The teacher taught us reading strategies.' 'I had more confidence to use English because the teacher taught us how to do it.'	
	'I think I know English more. I had more confidence to speak English because the teacher let us express our opinions.'	
Having the same favourable attitudes	'I have the same attitudes to learning English because English is my favourite subject.'	4
	'English is my favourite subject. So I still have the same feeling at the end of LNG 101.'	
	'I don't change my attitude towards learning English because English is my favourite subject.'	
	'I felt the same as I had done before taking LNG 101 because English is one of my favourite subjects.'	
Having the same attitudes: don't like English	'I don't have any positive attitude towards learning English because I don't like this subject.'	1

• Using the Inter-coder

In order to increase the reliability of the analysis of the interview data obtained in Stages 1 and 2 of the follow-up study, the author invited another coder to check the author's analysis. Weber (1990: 17) referred to the use of using more than one coder to analyse the same text as inter-coder reliability. Because of the time constraints, the author asked the inter-coder to check about 13% of the interview data. The inter-coder was the same person who helped the author evaluate the learning plans (see 4.3.2.).

The tapes were transcribed and then the interviews were translated word for word from Thai into English. The author had to interpret the students' responses sometimes because they might use some terms which were not clear. However, because the author was familiar with the students and she had interviewed them before, she understood what the students really meant. Then the author posted the information to the coder.

The information consisted of the interview questions, the English version of the answers to these questions which came from the same six students (about 13% of the whole data), the categories which had been set up and the criteria of coding as presented in the section on content analysis. There was 16% disagreement about the coding. The main problems arose from the overlap of the categories when the students expressed more than one theme in their answers. Another problem on the overlap of the themes came from the students using one sentence to express one theme and their responses contained a few sentences which carried a few themes with no emphasis on any theme. Therefore, it was difficult to allocate such responses in one particular category.

4.4. Summary

This chapter describes how this research study was conducted. The discussion is based on the literature and tells how the author applied the ideas from the literature to conduct this research study. The study was conducted as a case study research to investigate how the revised learner training programme (RLTP) helped the first year Engineering students at KMUTT to work to develop learner autonomy in the English class. The author tried to look at all the factors that might constitute the development of learner autonomy, i.e. students' attitudes, their behaviour, their background, classroom environment, the activities designed to promote learner autonomy, and teacher instructions.

The research was conducted in two phases: the fieldwork and the follow-up study. In the fieldwork, the author acted as both a teacher and a researcher to deliver the RLTP and to collect data. The follow-up study was divided into two stages: Stage 1 and Stage 2. Stage 1 was conducted to see how the students transferred what they had

learned from the RLTP to another English language learning context. Stage 2 aimed at investigating whether the students were able to transfer what they had learned in the RLTP to their engineering studies and what factors might contribute to their self-directedness while doing the engineering studies (see Diagram 4.1.).

The discussion covers description of the case, research instruments, i.e. how they were constructed and employed in the study and problems arising, and the change of the research design which arose from problems in the fieldwork and the data analysis process. The results of the research are presented in the next chapter.

Chapter 5

Data Presentation and Discussion

Introduction

This chapter deals with the discussion and presentation of the data obtained from the fieldwork and the two stages of the follow up study. The data from the fieldwork was obtained throughout the semester when the students took LNG 101 and were exposed to the RLTP. The data from Stage 1 of the follow-up study was obtained four months after the RLTP was finished, when the students were taking another English course. The students and the teachers of the elective courses they were taking were interviewed. The data from Stage 2 of the follow-up study was obtained when the students were studying in their second year of the university; the students no longer took any English course. The summary of the data collection is presented in the table below.

Data Collection Stages	Time	Purposes
Fieldwork	4 months of delivering the RLTP through teaching LNG 101	-to measure the level of autonomy throughout LNG 101.
Follow-up study: Stage 1	4 months after the fieldwork was completed, when the subjects were taking an elective English course	 -to see what level of transfer of autonomy there was to another English course and their opinions about the RLTP. -to measure the effectiveness of the RLTP by having the students reflect on LNG 101.
Follow-up study: Stage 2	1 year after the fieldwork was completed	 -to measure the transfer of autonomy to the subjects' studies of engineering -to collect additional data on the subjects' approaches to learning in comparison to the students who were not exposed to the RLTP in order to obtain more information to explain the effect of promoting learner autonomy on their learning. -to investigate the students' self-directedness in doing engineering studies.

Table 5.1: Data Collection Stages

The data was collected to measure the effectiveness of the RLTP as well as to measure the students' self-directedness in their engineering studies in order to explain

the factors that might contribute to their self-directedness. The presentation of the data relating to the effectiveness of the RLTP covered the students' prior experience of exposure in secondary school to a learning environment that encouraged learner autonomy. The findings that suggested the change in the students after they went through the RLTP, discussion of the factors that might contribute to the change, and whether the students applied what they had learned in the RLTP to other learning contexts are also discussed. With regard to the students' self-directedness in engineering studies, the presentation covered how the students acted autonomously in their engineering studies and the factors that might contribute to their behaviour. Triangulating the data obtained from different sources gave more insight into the process of development the students went through when they were exposed to the RLTP. The summary of the data obtained from the research study and purposes of using the data is presented in the table below.

Types of Data	Data collection Stages	Purposes
Data A	Fieldwork	-to measure prior experience of autonomy before the university studies.
Data B	Fieldwork Follow-up study: Stage 1	-to measure the development of autonomy/ the effectiveness of the RLTP -to measure the effectiveness of the RLTP (the data on the reflective views of the subjects about the RLTP)
Data C	Follow-up study: Stage 1	-to measure the degree of transfer of autonomy as indicated in another English course.
Data D	Follow-up study: Stage 2	-to measure the degree of transfer of autonomy as indicated in their engineering studies
Data E	Follow-up study: Stage 2	-additional data from ASSIST was used to probe further into how far the students were effective learners. The data was related to the effectiveness of the RLTP
Data F	Follow-up study: Stage 2	-to investigate factors that might affect the students' self-directedness in their engineering studies.

Table 5.2: Data Obtained in the Research Study

The presentation and discussion is of the data obtained from the two groups of students together but the groups were considered separately when the data indicated the difference between the two groups. While delivering the RLTP, the author reflected on her teaching by keeping her diary (see 4.2.3.1.). Having found the problems, the author

attempted to solve them by trying the new teaching method with the other group. Therefore, some data might indicate the difference in performance of the two groups of students as a result of the improvement of the author's teaching techniques.

5.1. Students' Background

In order to explain whether the students had developed learner autonomy after they went through the RLTP, it was necessary to investigate their prior experience in an English language learning environment which promoted learner autonomy while they were studying in secondary school. The questionnaire asked about teachers' behaviour which reflected their attitudes towards learner autonomy, classroom activities that promoted learner autonomy and facilities provided, all the aspects that were provided in the RLTP (see 4.2.3.1.). The questionnaire was distributed to the students at the beginning of the course.

The data is presented by converting the students' rating on a four-point scale ranging from 4 = often, 3 = sometimes, 2 = rarely to 1 = never and their responses about the provision of the self-access centre into percentage. The data came from 53 students; not all of the students were present on the first day of the class.

 Table 5.3: Findings from the Questionnaire Asking about Students' Experience of

 Learner Autonomy

	Category	Rating (%)			
		4	3	2	1
Te	achers' Behaviour				
1.	Encouraging students to learn by themselves	19	75	6	-
2.	Involving students in the decision-making process	28	40	30	2
3.	Listening to students' opinions	30	42	24	4
4.	Teaching new strategies	24	53	19	4
Cla	assroom Activities				
1.	Self-correction	6	43	40	11
2.	Project work	-	34	47	19
3.	Awareness-raising of learning strategies	13	43	30	14
4.	Analysis of learning objectives	11	40	30	19
Ha	ving a self-access centre	Yes =	83 %	No =	17 %

The data indicated that the students had been exposed to a learning environment that promoted learner autonomy especially that provided by the teacher as the majority of them rated positively (often and sometimes) on the items relating to the teachers' behaviour. With regard to the classroom activities, project work was the activity the students were the least familiar with as seen from the percentage of ratings for rarely and never. Most of the students had been exposed to a self-access centre. Not only did the data from this research instrument reveal the students' background, it also helped the researcher to plan how to handle the activities in the RLTP, e.g. whether she had to spend time preparing the students before involving them in those activities.

The data seemed to suggest that the students were, to some extent, familiar with the idea of learner autonomy as provided by their secondary school teachers. Therefore, the author did not have to spend time introducing the students to some activities such as discussing their learning strategies in order to raise their awareness of their use of the learning strategies. The data indicated that the students would probably not resist the process of acquiring learner autonomy which would be carried out by involving them in the decision-making process.

5.2. Motivation to Learn English

The data was obtained from the student interviews in Stage 1 of the follow-up study about their opinions of English language learning after they went through the RLTP. The findings suggested that most of the students (25 students) had higher motivation to learn English than they had before being exposed to the RLTP. The increase in the students' motivation to learn English resulted from the classroom climate and the students' perception of learning taking place. The students mentioned that the author having rapport with them and her provision of guidance in learning enhanced their motivation to learn English. They also mentioned the teaching and learning process such as group work tasks, freedom in learning, the opportunity to make decisions in learning and to think on their own helped enhance their motivation. Five students said that they wanted to learn English more after they had a positive experience

from LNG 101. Five students said that they had good attitudes towards learning English because of their language attainment. Seven students mentioned their confidence to learn and to use English. However, four students did not change their attitudes towards English language learning because they already had favourable attitudes. One student said that he still did not like to learn English. Examples of the students' responses are in Table 5.4.

 Table 5.4: Students' Attitudes towards English Language Learning after They

 Finished the RLTP

Category	Quotations	Number of Responses
Like/enjoyment of learning English because of a) classroom climate which came from 1.teacher -rapport with the students -providing guidance 2.teaching/learning -group work -freedom in learning -having the chance to make decisions in learning -being able to think and work on their own b) the students' perception of learning taking place	¹ think learning English was more enjoyable because it was different from what we had learned in high school. I liked the way the teacher let us make decisions in learning. I was not afraid of making mistakes because the teacher was there to give suggestions. We had more freedom while working in groups. I like doing group work tasks because we were able to share our knowledge.' ¹ like learning English better because the teacher was approachable. She made the class atmosphere relaxed. We had more freedom to learn.'	25
Wanting to learn English more because of 1.achievement gained from studying LNG 101 2.having positive experience provided by the teacher	'I want to learn English more because when I studied LNG 101, I had better understanding of what I was studying. I think learning English was interesting.'	5
Having good attitudes towards learning English because of language attainment	'I felt better because I understood what I was studying. The teacher had us do the tasks more often. The way she let us make decisions and show our opinions helped us to understand the language better.'	5
Having more confidence to learn and to use English	'Before taking LNG 101, I had thought that learning English was difficult. But after I finished the course, I knew that it was not difficult if we knew how to deal with the language. The teacher taught us reading strategies.'	7
Having the same favourable attitudes	'English is my favourite subject. So I still have the same feeling at the end of LNG 101.'	4
Having the same attitude: don't like English	'I don't have any positive attitude towards learning English because I don't like this subject.'	1

The students' positive attitudes towards learning English was reflected by their motivation to learn in another English class as reported by the teachers who taught elective courses except the LNG 103 teacher, who said that the subjects did not pay much attention in class but the quality of the subjects' work was as good as that done by the other students. Although the data came from the general observation of the teachers and although they were not able to reveal the students' behaviour in depth, it indicated some difference between the subjects and the other students studying in the same class. The responses of these teachers suggested that the teachers looked at students' behaviour such as attention, co-operation, any interest which suggested their participating in the learning process to signify their motivation to learn English.

'The TME students are very attentive. They ask questions and share their opinions in class more than the other students in the same class.' (LNG 102 teacher)

'The class is very big (around 60 students). The TME students are quiet but attentive. They do not ask many questions... I think when the TME students ask questions, they want to find reasons for the answers I gave to them. Although generally the students are quiet, I can tell that they understand the lessons. The quality of their work is better than the other students.' (LNG 104 teacher)

'Some of the students who are interested in English always ask questions such as how we got the answers, which part we should look at and so on. Generally, the subjects are more attentive than the other students. They are more co-operative, more interested and more punctual in finishing the task.' (LNG 104 teacher)

'The subjects are very talkative. Some are attentive, though. I think the able students don't seem to be interested in learning. Although the subjects are not as attentive as the other students, the quality of their work is not different from the other students.' (LNG 103 teacher)

The data from the pre/post questionnaires also indicated that at the end of the RLTP the students had higher extrinsic motivation with reference to their long-term goals to learn English (see Table 5.3). It might be because the students realised that they were studying in the university; therefore, their long-term goals were more realistic for them. In other words, the learning environment might have affected their extrinsic motivation to learn English. The increase in the students' motivation to learn English might have affected their behaviour in class and in learning English outside class.

5.3. Changes in Student Attitudes and Behaviour

The questionnaire were given before (pre) and after (post) the course LNG 101. The pre/post questionnaires were used as the main instrument to identify the areas that indicated the significant change at the end of the RLTP with regard to the students' attitudes and their behaviour, i.e. the more frequent engagement in the activities (see 4.2.3.1.). The findings from other instruments, i.e. student interviews, classroom observation, teacher diaries, a proforma asking about advantages and disadvantages of an independent study were used to explain the areas that indicated the change more fully. The Wilcoxon-Matched-Pairs Signed-Ranks Test was used to compare the data from the pre and post questionnaires to see if there was any significance between the pre and post questionnaire. Z scores and P levels (significance level at 0.05) are shown in Table 5.5.

Areas to be Investigated	N = 59	
a Cable Call and Cable Produce Statistics and Cable Statistics	Z	Р
	Poplare I	(<0.05)
1. Attitudes to an Independent Learning Mode	-2.84	.00**
2. Confidence to Learn by Themselves	-2.61	.01**
3. Attitudes to Autonomous Behaviour	33	.74
3.1. Knowing Learning Objectives	81	.42
3.2. Self-evaluation	68	.50
3.3. Making Decisions on How to Learn	74	.46
3.4. Behaviour that Shows Learning Responsibility	38	.70
4. Self-directed Behaviour	-1.86	.06*
5. Intrinsic Motivation to Learn English	-1.07	.29
6. Extrinsic Motivation to Learn English	-1.18	.24
6.1. Short-term Goals	26	.80
6.2. Long-term Goals	-1.41	.16*
7. Students' Attributions for Success and Failure	73	.46
7.1. Effort	03	.97
7.2. Ability	-1.51	.13*
7.3. Task Difficulty	-2.67	.01**
7.4. Teacher	-2.71	.01**
8. Using Metacognitive Strategies to Learn English	-2.14	.03**
8.1. Planning	-1.84	.07*
8.2. Monitoring	-2.32	.02**
8.3. Evaluating	-1.32	.19*

Table 5.5: Results from the Pre/Post Questionnaires

Note: ** (significance) *(near significance)

The null hypothesis for the study was 'there was no difference in the students' attitudes and behaviour related to learner autonomy after the RLTP was completed.' The data in Table 5.5 indicated that the null hypothesis was rejected in six areas: 1) attitudes to an independent learning mode, 2) confidence to learn by themselves, 3) students' attribution for success and failure to task difficulty, 4) students' attribution for success and failure to the teacher, 5) using metacognitive strategies to learning English and 6) monitoring. In addition, there were areas of nearly statistical significance which should not be overlooked: 1) self-directed behaviour, 2) extrinsic motivation to learn English with regard to long-term goals, 3) students' attribution for success and failure to effort, 4) planning, 5.) evaluating. To identify the significant change, the Wilcoxon-Matched-Pairs Signed-Ranks Test compared the students' rating on the same items in the pre and post questionnaires whether they rated higher, lower or the same. The improvement could be inferred from the greater number of the students rating the items higher in the post questionnaire than in the pre questionnaire. The areas that indicated the statistical significance or the nearly statistical significance suggested the students' improvement except the students' attribution for success and failure to the teacher.

The data presentation in the following sections discuss the findings that support the data from the pre/post questionnaires. All the areas that indicated a change in the pre/post questionnaires will be grouped into three main areas because some areas are related.

- 1. The change in the students' attitudes to an independent learning mode and their confidence to learn by themselves
- 2. Self-directed behaviour and the use of metacognitive strategies
- 3. Students' attribution for success and failure

5.3.1. Changes in Student Attitudes and Confidence

This section is concerned with the students' change of their attitudes towards independent learning and their confidence to learn by themselves. The data was obtained from the proforma asking about the students' opinions about advantages and disadvantages of an independent study after they had experience working in the SALL and the rating of their overall opinions about the usefulness of the independent study suggested that the students had positive attitudes towards this learning mode. The majority of the students gave ratings on the positive side (6-10). Only five students rated 5 which was the middle score.

In addition, the data gave more details about the students' opinions about the independent learning mode. The students were asked to list advantages and disadvantages of an independent learning mode from their experience in engaging in this learning mode in the SALL. Their answers suggested that they thought about aspects that classroom learning could not provide or provided less than the independent learning mode when listing the advantages of this mode of learning. In the same way, they talked about the teaching and learning aspects lacking in the independent learning mode, which might be important to them when they listed the disadvantages of the independent learning mode. The answers of the students were grouped into categories which are shown below with some examples of their answers.

Advantages of an Independent Learning Mode

- 1. Increasing responsibility for learning
 - Solving problems by ourselves
 - It helps me to learn to find information/knowledge by myself, which is useful for my future career...I have to do everything on my own.

2. Dealing with affective factors

- Learning is not frustrating
- I'm more motivated to learn because we are not forced to study according to the teacher's plan.

3. Having freedom in learning (with no control from the teacher)

- Learning by ourselves without the teacher's control
- Having freedom to choose material to study and can study whenever we want to
- 4. Helping the students to improve themselves and/or their learning skills
 - learning by ourselves helps us to memorise what we learn better
 - Broaden our perspective

• Disadvantages of An Independent Learning Mode

1. Having fewer benefits than learning in class

- No communication with other students. We can work in groups when we learn in class
- Learning grammatical structures less than we do in class
- 2. Not having feedback and/or correct answers
 - it's hard to tell if what I'm doing is correct or not
 - don't know our own weaknesses
- 3. No guidance/encouragement in the learning process
 - I have never done this learning mode before so I don't know when and what to do
 - Although we know our weaknesses, we can't make any improvement if there is nobody guiding us
- 4. Dealing with affective factors
 - No motivation to learn
 - I may be bored because there is no restriction

With regard to the students' confidence to learn by themselves, the data from the interviews suggested that **knowledge of the subject** and **the demands of the university study** were the factors that might affect their confidence in engaging in the self-study. They referred to their **needs for somebody to help solve their problems, their needs for guidance and encouragement from the teacher** and **uncertainty about the approaches they used** as the factors that made them not confident to undertake the self-study. Typical examples of the students' typical answers are presented below:

- I am confident to learn by myself in the subjects that I can read and understand without any explanation from the teacher.
- I am confident to study on my own because I'm good at English
- I'm not confident to learn on my own but I want to try doing it. When I study by myself, I'm not sure if I use the right method
- I'm not confident to learn on my own because I don't know how. I'm not a hard-working student. So I need a teacher to encourage me.

The data suggested that while learning the students appreciated the opportunity to work on their own because this aspect would help their learning as some said that they memorised what they learned better and they learned to solve problems in learning. In addition, it could enhance their motivation to learn. However, they still needed the teacher because they wanted to have correct knowledge of what they were learning. In addition to the knowledge, some of the students seemed to see the importance of working with others as a part of the learning process. It can be inferred from their answers that the learning process that the students wanted to have was a combination of teacher-led study, working on their own and working with friends.

• The Use of the SALL

The data relating to the use of the SALL was obtained from the student interviews. The author investigated the students' use of the SALL because it might reflect their positive attitudes towards and confidence to undertake independent learning which might in turn indicate the effect of the students' change in their attitudes towards and confidence in undertaking independent learning. Although generally the two groups of students had positive attitudes towards independent learning, the interviews at the end of the RLTP about their use of the SALL indicated that Mechanical Engineering students (ME) came to use the SALL more than the Tools and Materials Engineering students (TME). Most of the TME students (19 out of 26) reported that they used the SALL mainly to find the information for the project as required by LNG 101. More ME students reported that they used the SALL voluntarily than was required by the course; 19 students using it voluntarily and 14 students using it to find the information for the project. However, only having positive attitudes to independent learning and confidence to learn by themselves might not have been enough to encourage the students to use the SALL. Therefore, the author further investigated other factors that might contribute to the ME students' use of the SALL. The findings are as follows.

• The ME Students' Use of the SALL

This section discusses factors that appeared to contribute to the ME students' use of the SALL. The data from the students interviews, the classroom observation and the teacher diary suggested that in addition to the ME students' change in their attitudes towards and confidence to undertake independent learning, there were three other factors that might have contributed to their voluntary use of the SALL.

A. ME Students' Prior Attitudes to Independent Learning

It should be noted that the ME students already had positive attitudes towards this learning mode even before they were exposed to the RLTP and they considered independent learning as an important aspect of the university studies as revealed from the interviews when the author probed more about this area. The students mentioned that they **had to** do the self-study and **help themselves** more because they were now studying in the university which required them to change their learning style. Typical answers are as follows:

- In the university, we have to do self-study but in the secondary school the teacher was always there to help us
- Teachers do not have to give feedback all the time because we have to help ourselves more as we are studying at this level. Students have to study on their own.

Such answers indicated that the students saw the importance of engaging in selfstudy because they were now studying at a higher level where they were expected to help themselves more. Therefore, they came to use the SALL voluntarily because it would help their English language learning.

B. Effectiveness of Preparation of the Self-study Lesson

The data for the measurement of effectiveness of the self-study lesson was obtained from the classroom observation, the teacher diary and the student interviews. In order to help the students change their attitudes towards independent learning, the author used the method of *'learning from experience'* to help the students realise the usefulness of this learning mode. Before letting the students work in the SALL, the author prepared the students for self study (see Table 3.1: Psychological Preparation). The data from the classroom observation and the teacher diary suggested that the effectiveness of the self-study lesson in providing the students with hands-on experience in order to enhance positive attitudes towards an independent learning mode might stimulate the students to use the SALL more.

With reference to the preparation that the author gave to the students in both groups before letting them go to the SALL to do the self-study, the observer gave positive comments on the preparation given to the ME class.

'In the ME class, the teacher elicited the overall objectives and how to fill in the worksheet from the students step by step and gave clear examples. The students were attentive; some listening, others writing down what they had to do in the SALL.'

She also commented on the good timing when the author started the lesson, clear instructions and appropriate teaching pace. According to the timetable, the ME class always followed the TME class. For this activity, the TME class was one week ahead of the ME class. When teaching the TME class the author wrote in her diary about the problems arising from the teaching that

"... I presented the worksheet on self-study in the SALL as a final task for this unit. I told the students about the importance of planning and then gave an example by planning the self-study task together. I asked the students their preference in learning, their rough plan, etc... I thought that I didn't take this preparation stage seriously. So half of the class chose to play Scrabble (about 16 students) as their self-study activity. Three students chose learning from songs. Four students chose reading magazines and newspapers. Three did grammar exercises. I suppose I didn't explain the worksheet clearly enough so the students filled it out vaguely...'

Bearing these problems in mind, the author tried to improve the preparation given to the ME students and asked the students to summarise what they learned in the SALL as an additional task in order to make the self-study activity more meaningful to them. To check whether the students understood the purpose of the self-study activity, the author asked in the interviews about this matter. Examples of the students' answers indicated that they did understand the purposes of this activity.

- Before coming to the SALL, the teacher asked me to plan what to do. I said I wanted to listen to the tape. So she showed me how to find materials in each corner. I think she wanted me to practise doing self-study.'
- Knowing how to learn by ourselves. Knowing our duty that we have to learn on our own.
- To study whatever we want to. To know how to do self-study so that we can help ourselves when we have problems.

The data suggested that teaching had an effect on the students' behaviour.

C. Students' Motivation to Learn English

Motivation to learn plays a role in students' learning. It was speculated that the use of the SALL voluntarily could also be related to the students' motivation to learn English. The data in 5.2. suggested that the students were motivated to learn English. The data from the pre/post questionnaire also indicated that there was a change in the students' extrinsic motivation to learn English with regard to their long-term goals. Therefore, the students' use of the SALL to practise English on their own might also come from their motivation to do well in the course.

5.3.2. Self-directed Behaviour and the Students' Use of Metacognitive Strategies

To be self-directed in learning requires the students to have learning objectives, evaluate their learning in order to find out about their weaknesses in order to improve them and to use metacognitive strategies. According to Holec (1981: 14-19) and Rubin (1987: 25), metacognitive strategies are those that help the students to be self-directed in their learning; because, in order to be self-directed in learning which requires less help from the teacher, the students have to use metacognition in the learning process in order to evaluate the tasks and their own knowledge before planning how to deal with the task. Then they have to monitor their performance to detect any difficulty that might affect the success of the task and try to solve the problems. After finishing the task, the students then evaluate whether they have performed well enough or not.

This section looks at the changes between the pre and post questionnaires and gives details of how the students employed metacognitive strategies in learning. The data was obtained from the student interviews, the checklist and the learning plans which gave data specifically on planning strategies. In the pre/post questionnaires, the author investigated the students' self-directed behaviour by looking at how the students demonstrated their responsibility for their own learning, i.e. finding learning objectives, evaluating their learning in order to find out about their weaknesses and trying to improve them, and thinking about how to learn better. Although the data from the pre/post questionnaires indicated the students' improvement in this area at the end of the

RLTP, the data from the student interviews did not give more details. It supported the data from the pre/post questionnaires in that most of the students (30 students) said that they tried to solve the problems by themselves before turning to either friends or the teacher for help. The other 17 students reported that they would turn to either friends or a teacher for help.

The data on how the students used metacognitive strategies to handle the tasks gave more details about the students' self-directedness. The data indicated that the students used metacognition mostly in planning by trying to find out about the objectives of the tasks in order to evaluate their knowledge of their ability to do the task and then plan how to finish it. Monitoring was another metacognitive strategy that the students reported using to handle the task. In this study, monitoring involved the on-going evaluation of performance while doing the task in order to detect the problems and find ways to solve them. The students reported their evaluation of the tasks which took place at the end of the task the least among the three metacognitive strategies. The data on how the students used metacognition to deal with the English tasks was revealed from their interviews and the checklist.

Table 5.6: How Students Used Metacognitive Strategies to Handle English Tasks

The data was obtained from the student interviews by asking them to explain how they approached a certain English task. It indicated that most of the students used planning to handle the tasks.

Category	Quotations	Number of Responses	
Planning by -thinking about how to do the task -trying to know objectives of the task -consulting others of how to do the task	'I first try to find out about the objectives of the task and see how much knowledge I have in order to be able to finish the tasks.' 'I first ask the teacher the details of the task and then plan how to finish it. If it is a group work task, I delegate the duty to the group members. If it is an individual task, I try to manage the time to finish the task.'	23	
Planning and monitoring (knowing that they had problems indicating that they monitored the difficulties they	'I try to know objectives of the task first. And then I do the task step by step. I consult the teacher if I have any problem.'	7	

had while doing the task)		
Monitoring	'I I will consult friends or a dictionary when I don't know the meaning of any vocabulary.'	5
Planning and evaluating	'I first ask the teacher the details of the task and then do it. After I finish the task, I check if I do it correctly.'	2
Monitoring and evaluating	'I ask friends when I don't understand what I'm doing and then ask the teacher. After that I try to finish the task and check if I do it correctly.'	6
Evaluating	'I try to do the task first and then check it with friends.'	1
Not mentioning metacognitive strategies		3

In addition to the student interviews, the data obtained from the students' selfreport on the strategies they used to complete the listening, speaking and writing tasks by ticking the strategies provided in the checklist also revealed the students' use of metacognition to plan, monitor and evaluate the tasks. The manner of planning, monitoring and evaluating was different according to the tasks. How the students used metacognitive strategies indicated their use of person knowledge, task knowledge and strategy knowledge to make decisions on how to deal with the task.

Table 5.7: Students' Use of Metacognitive Strategies to Handle Listening Tasks

The data was obtained from 57 students who reported on their experience in doing the listening tasks in the sound-lab where they were able to control their pace of listening.

Types of Strategies	Number of Students Using the Strategies
Planning	
1.I read the questions and the alternatives before listening so that I had a purpose in listening.	52
2.1 tried to predict what I was listening to from the instructions, the questions, and the pictures.	32
3.Before listening, I read the title and the instructions. Then I thought about the words that might be heard in order to prepare myself for the listening task.	23
Monitoring	
1.After the first listening, when I found out that I didn't know some words, I tried to find their meaning before doing the second listening.	13
2.I tried to write down what I heard but did not understand and kept repeating this to myself until I began to figure out what it might mean.	7
3.I wrote down only the key words which I didn't know, then found out their meaning before doing the second listening.	3
Evaluating	
1.I checked if I had completed the task correctly by listening to the whole text and checking the answers.	33

2. When checking, I tried not to change what I had done earlier.	9
3.If the task was filling in the blanks, I checked the answers by looking at	10
spelling and grammatical correctness.	
4.I do not check the task before submitting it.	6

The data from the checklist supported the data from the students interviews presented in Table 5.6 by giving more details on how the students used metacognitive strategies. The data indicated that the majority of the students (52) planned by trying to have purposes in listening. Not many students reported that they used the strategies suggested in the checklist to monitor while listening. However, nobody reported other monitoring strategies when asked to add more strategies; there was no evidence whether all the students monitored while listening or not. Many students (33) reported that they evaluated by listening to the whole text in order to check the answers. However, six students did not use any evaluating strategies after they had finished their tasks.

Table 5.8: Students' Use of Metacognitive Strategies to Handle Speaking Tasks

The data was obtained from 54 students who participated in a speaking activity. A checklist was distributed at the end of the interactive speaking activity conducted while the students undertook the self-study activity in the SALL (see 4.2.3.1.: Checklist of the Strategies the Students Used to Handle the Language Tasks). The author focused on monitoring strategies only as they are regarded as the strategies employed mainly in speaking (Oxford, 1990: 161) (see 4.2.3.1.).

Types of Strategies	Number of Students Using the Strategies
Monitoring	
1.If the listener didn't understand, I kept repeating the same word.	21
2.I stopped talking when the listener didn't understand me.	8
3.I turn to a friend for help as soon as I knew the listener didn't understand me.	20
4.I rephrased the sentence when I noticed that the listener didn't understand me.	21
5.I changed my stress patterns when the listener didn't understand me.	6
6.I spelled the word when the listener didn't understand me.	25
7.I was careful about my pronunciation when speaking English.	24
8.1 monitored my speaking and changed the sentence immediately when I knew	19
I was making a mistake.	
9.1 thought of grammatical correctness when speaking.	16
10.I asked the listener when I was not sure if what I said was correct or not.	26

The data indicated that many students (24) were concerned about accuracy in relation to their pronunciation. Many students (26) reported that they asked the listener when they were not certain about the correctness of their speaking, which implied their concerns about the accuracy and their need for the teacher who was regarded as an expert in the learning situation to help them. The data suggested that the students used metacognition to help them deal with the speaking task (see 2.3.1.2.2.). They knew their weaknesses in speaking (person knowledge) and they wanted to get the message across correctly (task knowledge). Therefore, they tended to ask the listener/the author as she could help them (strategy knowledge).

Table 5.9: Students' Use of Metacognitive Strategies to Handle Writing Tasks

The writing tasks which were final tasks of each unit were regarded as the most important tasks because the students had to demonstrate their understanding of the concept and language patterns learned throughout the unit as well as using their existing knowledge of language to complete them. The data was obtained from 59 students.

Types of Strategies	Number of Students Using the Strategies
Planning	
1.I read the instructions carefully before writing so that I was able to choose the writing style suitable for the task.	54
2.I made a rough draft in my mind before starting to write.	42
3.I made an outline of what to write first.	21
4.I asked a teacher to check my outline before starting to write.	17
5. When planning how to write, I wrote down the ideas in Thai and then listed vocabulary that I would use.	17
Monitoring	
1.I read aloud my writing when revising so that I knew if it sounded correct or	12
not.	
2. When revising, I changed words that I used too frequently.	24
3.I knew the sentences I constructed did not sound English but I didn't know	27
how to correct them.	
Evaluating	
1.I wrote more than one draft before submitting the work.	15
2.I checked how a word was used in an English dictionary so that I was able to use the word correctly.	30
3.I checked spelling when I finished writing.	11
4.I checked grammatical mistakes when I finished writing.	24
5.I checked organisation of the text at the end of my writing.	25
6.The grammatical aspects that I corrected were subject-verb agreement, tenses and articles.	11
7.I used my coursebook to check if grammatical constructions were correct.	15

The data suggested that the students mainly planned how to do the task by considering the nature of the task to choose the style to write (52 students), which implied they might have to evaluate their knowledge of the task. The next most preferred planning strategy was making a rough draft, which indicated their use of strategy knowledge in order to plan how to finish the task (see 2.3.1.2.2.). Many students (27) monitored their performance and they were able to detect their problems in writing, i.e. their sentences were not idiomatic, but were not able to improve them. This indicated that the students still needed the teacher to give feedback on their writing tasks. Many students (24) reported that they revised the tasks, which suggested evaluation and rewriting of the tasks. To evaluate the tasks, many students were concerned about grammatical structures (24) and organisation of the text (25). Their self-report also indicated their independence from the teacher by trying to use the available resource to help them deal with the tasks as 30 students ticked the item '*I checked how a word was used in an English dictionary so that I was able to use the word correctly*'. However, 21 students reported that they did not revise their writing.

The data from the checklist indicated how the students self-regulated their learning by using metacognitive knowledge in planning and evaluating (see 2.3.1.2.2.). The students' self-regulation is also related to their adopting the deep approach in learning (to be discussed in 5.4., see 2.2.1.).

• Self-directed Behaviour: Students' Use of Planning Strategies

Another piece of data which was related to the effectiveness of the RLTP was the improvement in the use of planning strategies which were emphasised in the RLTP by having the students plan their own learning (see Table 3.1: Methodological Preparation). In order to draw up the learning plans, the students had to evaluate their learning needs, their time, their pressure from the other courses in order to set up a realistic goal. Then they had to think about how to achieve their goal and how to assess whether the goal was achieved. To revise their first learning plan, the students had to monitor their

performance and evaluate whether it met the goal set or not. It can be said that this activity dealt with using planning strategies in a broader situation i.e. the students' whole learning. This activity also aimed at encouraging the students to set goals in their learning. Carver (1984: 128) saw helping the students to generate their plans for learning as encouraging students to become more self-directed (see 4.2.3.1.).

The data was obtained from 50 students who completed two learning plans by comparing the quality of the two learning plans generated by the students. The learning plans were evaluated by the author and the evaluator, who was invited to evaluate the learning plans in order to increase the reliability of the comparison (see 4.3.2.).

The comparison of the students' learning plans 1 and 2 is shown in the graphs below. The number of the students who scored in each category were converted into percentages. The comparison was done by showing the three ranges of scores: 1-1.5, 2-2.5 and 3 and the number of the students who scored in the first and the second learning plans. The marks presented in the graphs were the finalised marks resulting from the discussion between the author and the evaluator.

• Learning Objectives

The graph shows a little improvement in this category as the number of the students who scored 3 was a little higher in the second plan. However, the number of those who scored between 1-1.5 was also a little higher. This might come from the lack of specificity in their learning objectives. After the students analysed their problems and their plans, they tended to say that their problems were having no time to do the activities. Therefore, they tended to state the objectives vaguely such as 'finding more time' 'making full use of my time'.

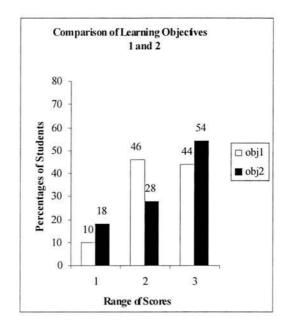


Fig 5.1: Comparison of the Scores of Learning Objectives in Learning Plans 1&2

Activities

The graph shows that the students did worse in the second learning plan. Although there was an increase of 2% of the students who scored 3 in the second learning plan, fewer students scored between 2-2.5 and more students scored between 1-1.5. The main problem arose from the students' not stating all the activities relevant to the learning objectives; the activities might not cover the learning objectives or be related to the learning objectives.

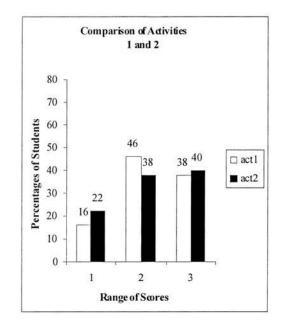


Fig. 5.2: Comparison of the Scores of Activities in Learning Plans 1&2

Materials

The graph shows that the students scored slowly in this category. The results suggested that the students might not be able to state specific materials to be used with the activities because of their inadequate knowledge of availability of materials. Perhaps this category was not realistic to them because they had been provided with materials to study. In the second learning plan, although some students successfully showed their analysis of the problems they were encountering, they did not know the materials available sufficiently well enough to choose them appropriately. Therefore, when they were asked to revise their learning plans, they were able to design activities but were not

able to specify the appropriate materials satisfactorily. They mentioned the materials vaguely such as 'textbooks, materials in the SALL, a tape player and a book.'

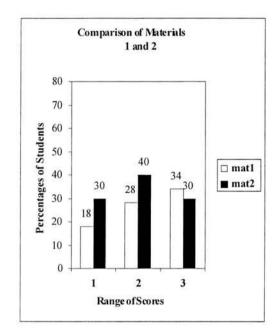


Fig 5.3: Comparison of the Scores of Materials in Learning Plans 1&2

Timescale

Although the graph shows a little improvement in the students' timing of the second learning plan, it can be said that the majority of the students did not do well in this area. The reason why the students scored low in this area was because many of them did not state the time allocated for the activities. Those who stated the time tended to state it vaguely such as 'whenever I have time, no specific time, in the morning, every day.'

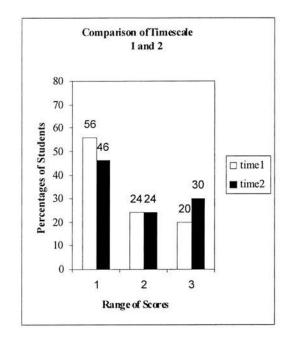


Fig 5.4: Comparison of the Scores of Time Allocated to Finish the Activities in Learning Plans 1&2

• Evaluation Criteria

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The graph shows that the students made a little improvement in this category. On the whole the students performed satisfactorily in this category. They were able to state the criteria to evaluate their performance practically on their own, such as *'listening with more understanding.'*

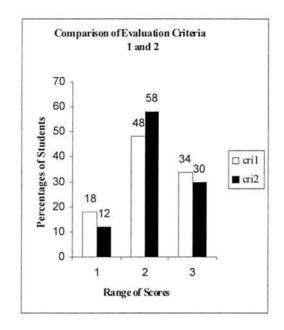


Fig 5.5:Comparison of the Scores of Evaluation Criteria in Learning Plans 1&2

The comparison of the results of the two learning plans by using the Wilcoxon Matched-Pairs Signed-Ranks Test also indicated that materials was the area that showed a statistically significant difference.

Table 5.10: A	Comparison	between	the	Scores	Given	to	Each	Area	in	Learning
Plans 1&2										

Areas	N	= 50
	Z	Р
		(<0.05)
1. Learning Objectives	33	.74
2. Activities to Reach the Objectives	12	.90
3. Materials Used to Do the Activities	-2.70	.01*
4. Time Allocated for the Activities	43	.67
5. Criteria to Evaluate if the Objectives were Achieved	28	.78

The results from the comparison between the students' first and second learning plans suggested the problems arising from delivering the RLTP by having the students plan their learning and make changes without any help from the teacher. When designing this activity, the author speculated that the process of self-analysis would enable the students to be aware of their constraints and to deal with them but the findings from the comparison of the learning plans suggested the opposite outcome (to be discussed more in 5.5.3.).

5.3.3. Students' Attributions for Success and Failure

The data in Table 5.5 indicated that there was an increase in the students' attribution for success and failure to the three factors; namely, ability, task difficulty and the teacher. With regard to the students' attributions for success and failure to the teacher, the results indicated that a higher number of the students gave a lower rating in the post questionnaire. This finding seemed to indicate that more students had apparent *teacher-dependent attitudes* which developed after they had been through the RLTP. The finding seemed to oppose to the hypothesis that the RLTP would lead to more independence. Therefore, the author further investigated what factors might contribute to the development of such attitudes by looking at the data from other instruments, i.e. classroom observation and teacher diary. In addition, probing questions were used in the interviews to find out if the change in the students' attribution for success and failure to the teacher had any effect on their attitudes to learner autonomy, e.g. the students were asked if they thought the teacher played an important role in their learning.

The data indicated that there were two factors that contributed to the students' development of teacher-dependent attitudes.

A. The Effect of the Teacher/Author's Personality and Her Relationship with the <u>Students</u>

The students' answers in the interview suggested that they regarded the teacher as a **motivator** to help them learn more. The typical answers were

'If I don't like the teacher, I am not motivated to learn.'

'I think when the teacher has a good relationship with students, they want to study... they can ask questions. The lesson is not boring like when we study with strict teachers.'

'I think the teacher has a lot of effect on my success because if the teacher is active, we like the subject more.'

One student thought that the teacher played an important role in his achievement because he was not proficient at English.

'I think to learn English more and learn it better, I need somebody to guide me.'

The teacher was also regarded as a person that encouraged the students to

learn more.

'I think you helped guide me. I can't do well when there is nobody pushing me to learn.'

Those answers indicated that the students needed the teacher to encourage them in the learning process partly because they were not good at the subject they were taking, i.e. English and because the teacher was a part of the learning environment that might influence their learning, e.g. being active or bored while learning.

One factor that might affect the students' attitudes towards the teacher was the way the teacher treated them. Therefore, the author asked the students if she spoon-fed too much, i.e. whether she was proactive in offering help and too attentive to their problems. Only four students said that sometimes the author offered too much help and did not let them think. The rest of the group considered this behaviour as exemplifying close attention from the author and they liked the way the author had rapport with them especially when they compared this student-teacher relationship with other English teachers they used to study with. For instance, one student said that

'I think I have more freedom to communicate with you because of your personality that creates a relaxing atmosphere in class.'

Another said that

'The way you treat us encourages us to come to consult you when we have problems.'

When asked about teacher's responsibilities, the students said that generally the teacher played an important role in their learning process as a consultant and a person who helped them to know their weaknesses in addition to giving knowledge. The students did not think that the teacher had to help them all the time; some mentioned letting the students work on their own as the teacher's responsibility. Since the teacher/author was approachable, the students felt relaxed and enjoyed contacting her. This manner of dependence was not regarded as a factor that prevented the development of learner autonomy because the students still showed their positive attitudes towards taking responsibility for their learning.

B. The Effect of Teaching

It was hypothesised that the teaching and learning process might to some extent influence students' attitudes since the study was conducted in the classroom. As Rajecki (1982: 4-6) states, an attitude arises from experience. Therefore, in order to find what might contribute to teacher-dependent attitudes, the author looked at the data from the classroom observation and the teacher diary which provided information about the classroom atmosphere. The data from these two instruments were rather subjective; therefore, the author validated them by using the data from these two sources to check against each other. The findings suggested three weaknesses in the author's teaching.

1. <u>Not providing enough resources</u>. The observer pointed out that resources such as dictionaries were not adequately provided. This might create teacher-dependent attitudes because the students had to seek help from the author such as asking about vocabulary or expressions they wanted to use because the tasks required them to produce the language. Turning to the teacher was easier and took less time than looking up the

words in the dictionary. An example of the extract from the observation sheet is as follows:

The teacher should provide some more dictionaries or other information for students to get the information they lack by themselves. Otherwise, the students have to ask their teacher for information such as expressions, vocabulary.'

The author also wrote in her diary that

"... The students were still dependent on me by asking questions when they didn't understand the words or instructions. When I asked them to look up the words in the dictionary, they said that they preferred asking me. Next time, I'll provide more English-English dictionaries in class so that they will learn to use the dictionary before asking for help from me ... '

....Since the tasks were open, the students could choose to write the safety rules of the sports they were interested in. I thought the students were involved in the process of doing the task... yet they asked me the vocabulary they wanted to write down. Although I provided an English-English dictionary and a Thai-English dictionary, only 10% of the students used them ... '

The author was aware of the students' dependence and tried to solve this problem

by allowing the students to go to the SALL to use the resource there as she noted in her

diary

... when having the students complete the final task of Unit 2, I tried to combine a group work task with freedom of getting help from available resource. So when the students had to find the information of how each engine works, I asked them to go to the SALL to get more information when they felt they didn't have enough information to complete the task. In this way, the students would be familiar with the process of finding information by themselves ... '

Later, the students seemed to be familiar with using the SALL as a resource as seen from the author's writing in the diary about the students' behaviour when completing the final task of Unit 4 that

... four groups of students worked in the SALL. Every group consulted the dictionary. One group found the books about camels and the desert and got some information from these books. Only one group decided to work in class but they also used the dictionary I provided. I realised that once the resources are enough, the students are able to work independently. Normally, when they have to do the tasks in class, they ask me vocabulary because their vocabulary is limited but they want to communicate. So the only source they can turn to is the teacher ... '

2. Teaching techniques. Another piece of evidence found from the classroom observation that might contribute to teacher-dependent attitudes was the author's teaching technique, which focused more on explanation than elicitation. The observer noted in the observation sheet when asked to give an overall comment of the class that:

'Teacher should elicit more from the students. It seems to me that the students needed some more input or expressions and vocabulary needed to finish the task. The teacher tended to explain and let the students work...'

The above extract is related to the lesson concerning the preparation for the final task of the unit which should be done by elicitation because elicitation from the students enables the teacher to know what the students know and what they lack. The data indicated that in such a situation, all the information the students needed for the task came from the author. This behaviour might reinforce the idea that 'teacher knows best.' The same evidence was also found from the author's diary where she tended to describe her teaching by using the following words:

"... I also told them the objectives of having them fill in the learning plan ... "

"... I taught listening techniques by telling them the importance of pronunciation and how it affects listening comprehension..."

"... I thought I didn't **explain** the worksheet clearly. So they filled out the worksheet vaguely...' "... then I **teach** expressions that they want to use when they debate...'

These terms suggested that the author focused on herself as a person who gave all the information in the learning process. Some activities such as giving the objectives of the exercise or teaching expressions could also be done by asking the students to brainstorm in order to reach the answer. This might limit the students' choice and freedom to decide about their learning as revealed by the research by Watson Todd (1996 see 3.2.2.).

3. Not giving enough preparation for the task. The comments on the lack of elicitation from the observer also indicated another problem, i.e. not enough preparation being given in terms of language and content to the students before having them do the task which was meant to enhance the students' freedom to learn and their independence from the teacher. When they turned to the teacher and got help easily, they tended to depend more on the teacher.

The data concerning classroom atmosphere suggested that in order to give freedom to learn and facilitate students' independence from the teacher, it was important

to provide enough resources while the students were doing the task and preparation before letting the students do the task so that the students were competent to work on their own. The students always think that the teacher knows more than them and of course it is true that she is a language expert in that situation. However, the teacher should emphasise that there are many ways the students can show independence as she does not want to enhance the students' dependence on her.

5.4. Students' Approaches to Learning

The author thought that it would be beneficial to find out how the students perceived and reacted to the learning environment they encountered having seen from the data obtained from the fieldwork that the students developed apparently teacherdependent attitudes. Therefore, she used the Approaches and Study Skills Inventory for Students (ASSIST) to measure the students' approaches to learning, which might reflect the students' perception of and reaction to the teaching/learning environment of LNG 101. The study by Ramsden and Entwistle on effects of academic departments on students' approaches to studying indicated that good teaching and freedom in learning promoted the students' adoption of the deep approach to learning (Ramsden and Entwistle, 1981).

ASSIST was applied one year after the RLTP was completed (see 4.2.3.2.1.). It was applied to a) those second year Engineering students who had done the RLTP with the author in the previous year hereafter referred to as the subjects, b) first year Engineering students doing LNG 101 with the OLTP. The author wanted to find out whether their approaches to learning LNG 101 was different. The original subjects who were now studying in the second year in the Tools and Materials Engineering Department and the Mechanical Engineering Department (50 students) and the representatives of the first year Engineering students from six departments (243 students) were asked to complete ASSIST.

Although the inventory was used with Thai students who came from a different culture, the factor analysis showed that the patterns of the main factors were similar to the previous analysis, the most recent analysis was the study conducted by Tait et al. (1997). Factor 1 represented the deep approach, factor 2 the surface apathetic approach and factor 3 the strategic approach (see Appendix C). Cronbach's alpha value of the main factors were relatively high (deep approach = .75, surface apathetic approach = .69, strategic approach = .82). The Mann-Whitney U Test was used to compare the subjects and the first year students. The results indicated significant overall difference between the two groups on the deep approach ($Z_{(291)} = -2.35$, p<.05). The table below shows the medians, 25^{th} and 75^{th} percentile scores of the subjects and the first year students on the deep approach; the median percentile scores of the subjects were higher than those of the first year students.

Table 5.11: A Comparison of the Median, 25th and 75th Percentile Scores between the Subjects and the First Year Students on the Deep Approach

Percentile	Deep Approach			
	Subjects	1 st year students		
25	56	52		
50	61	58		
75	65	64		

Since the data indicated that the subjects used the deep approach in studying LNG 101 more than the first year students, the author further compared the sub-scales of the deep approach in order to see the areas that indicated the significant difference of the two groups by using the Mann Whitney U Test. The results indicated a significant difference of the two groups on interest in ideas ($Z_{(291)} = -1.96$, P<.05) and seeking meaning ($Z_{(291)} = -2.15$, P<.05). The median percentile scores of the subjects were higher than the first year students in both areas as shown on the table below.

Percentile	Intere	est in Ideas	Seekin	g Meaning
	Subjects	1 st year students	Subjects	1 st year students
25	13	12	14	12
50	15	14	16	15
75	16	16	17	16

Table 5.12: A Comparison of the Median, 25th and 75th Percentile Scores of the Subjects and the First Year Students on the Sub-scales of the Deep Approach

The fact that the subjects adopted a deep approach to learning more than the first year students when studying the same course which had the same requirements might suggest the difference in an learning environment while they were studying LNG 101, i.e. the subjects were exposed to the environment that encouraged more autonomy. The data that might be able to support the data from ASSIST was that obtained from the student interviews about the atmosphere of LNG 101 which revealed the subjects' perception of freedom in learning provided by the author.

• Students' Perception of Their Freedom to Learn

The data was obtained from the student interviews conducted at Stage 1 of the follow-up study. The subjects were asked to compare the atmosphere of LNG 101 with that of the English class they were taking in the second semester because the comparison between courses of the same discipline would be able to indicate whether the subjects really perceived freedom to learn provided by the author when they took LNG 101. The data not only indicated the subjects' perception of freedom to learn, it also suggested the factors that might create such a perception. The subjects mentioned making decisions in learning, working in groups, working on their own and sharing opinions in class as freedom in learning. They thought that such aspects came from the teacher as well as the nature of the course.

Table 5.13:	Students'	Perception	of Their	Freedom t	o Learn

Category	Quotations	Number of Responses
LNG 101providing more freedom in learning; more opportunity for the students	'In LNG 104, we hardly have the chance to discuss and make decisions in learningno choices. I like to study LNG 101 more than LNG 104.'	16

to -make decisions in learning -work on their own -do group work tasks -share opinions	'I think the atmosphere of the two courses is different. I'm bored of studying LNG 102no freedom. We have to follow the patterns provided by the teacherthis limits our freedom. There is no choice in learning.'	
Both courses providing the same amount of freedom which came from -the teacher -the nature of the course	'The atmosphere of LNG 102 is similar to LNG 101 because the teacher also gives us freedom to learn. I think it's because of the teacher who gives us the chance to express our opinions.'	15
	'Both LNG 101 and LNG 104 have the same atmosphere; the teacher gives us choices. I like the way the teachers give us choices which are neither narrow nor too broad. But I like LNG 101 better because the teacher was more relaxed.'	
Freedom to learn coming from working independently with the SRA kit (no comparison between the two courses)	'Both LNG 101 and LNG 104 give the same amount of opportunity for us to work in groups. Although we have freedom when working with the SRA kit, we have to finish the tasks as required by the course.'	2
Not related to freedom to learn. Students relating the difference in classroom atmosphere to -teachers	'The atmosphere of the two courses is different because the teaching and learning process of the two courses is different. In LNG 101, the teacher led the class but in LNG 104 we worked independently with the SRA kit.'	14
-their teaching -nature of the tasks -how they engaging in the tasks -mixed group	'The atmosphere of LNG 104 is different from LNG 101 because I was closer to the LNG 101 teacher. I'm not close to my classmates in LNG 104 because they are from different department.'	

Assessment was another aspect that might affect the students' approach to learning (Ramsden, 1985). The interviews with the teachers who taught LNG 101 at the same time as the author indicated the difference between the assessment process used by the other teachers and that used by the author (see Table 3.1: Psychological Preparation). There was not much evidence about the subjects' perception of the assessment process the author used in LNG 101 because the author did not probe this matter in the interviews; she asked the subjects to describe generally their perception of freedom in learning. However, there was one subject who referred to the assessment process that 'I know that whatever I wrote down would be correct.' This statement might indicate how he felt about the flexibility of the assessment process the author used.

5.5. Effect of the RLTP

This section is the discussion of the effect of the RLTP by focusing on the data presented in the previous sections. The effect of the RLTP is seen in the five areas that indicated a change and/or improvement at the end of the RLTP: 1) motivation to learn English, 2) attitudes and confidence, 3) self-directed behaviour and the use of metacognitive strategies, 4) attributions for success and failure and 5) approaches to learning. The discussion of the data on the effect of the RLTP will be conducted by looking at the implications of the data with reference to theory.

5.5.1. Motivation to Learn English

The data from the pre/post questionnaires and the student interviews indicates that the students were more motivated to learn English. The data also indicates the students' thinking about the provision of freedom in learning, the opportunity for making decisions in learning, doing group work tasks, working and thinking on their own as the factors that enhanced their motivation to learn. This finding supports Deci and Ryan's ideas about providing an atmosphere to encourage self-determination in order to enhance intrinsic motivation to learn, which is one of the key factors for successful learning (1985 see 2.3.1.1.1.). However, it should be noted that the teacher also played a role in enhancing the students' motivation to learn. The students perceived that the self-determining learning environment where they were able to exercise their autonomy to a certain extent came from the teacher and the nature of the course (see Table 5.13). The author's rapport with the students and her attempt to involve the students in the learning process enhanced the students' motivation to learn English. With regard to the nature of the course, it should be noted that the nature of LNG 101 allowed the author to adapt the tasks so that the students were able to exercise their autonomy to some extent. Although in each unit the author had to cover all the content as it was requisite for the final task, she was able to change the final task to give more choices to the students. Since the nature of the task in LNG 101 was not fixed, the author was able to allow the students to freely communicate and she tried to correct their

English by focusing on what they wrote, not by following what it was said in the answer keys; the author focused on fluency rather than accuracy.

The data also indicated a change in the students' extrinsic motivation to learn English with regard to their long-term goals. This finding supports Dornyei's argument about the greater influence of instrumental motivation to learn L2 especially in young adult learners (Dornyei, 1994b: 520). In this study extrinsic motivation was investigated with regard to the students' instrumental use of English such as getting a good job, travelling abroad and so on. The data indicated that the students might realise that they were studying at a higher level and were supposed to take more responsibility for their own learning (see p.200: Students' Prior Attitudes to Independent Learning). This realisation might affect their extrinsic motivation to learn English because their longterm goals such as getting a good job were more real to them.

The increase in the students' motivation to learn English resulted in their positive learning behaviour such as their use of the SALL and their active participation in the learning process.

5.5.2. Attitudes and Confidence

The findings in 5.3.1. indicated that the hands-on experience in the use of the SALL played a part in enabling the students to have positive attitudes towards an independent learning mode and to be confident to undertake self-study in the SALL voluntarily. However, the careful preparation of the students to undertake self-study in the SALL also played a part in the success of the provision of this hands-on experience. When designing the RLTP, the author tried to solve the problem of how to integrate the use of the SALL into the normal course more than using it as a resource to do the project only. The data suggests that expanding the preparation of the students to use the SALL by giving them an opportunity to carry out self-study there encouraged the students to use the SALL voluntarily but it was necessary that the students knew the objectives of the self-study activity. However, there were other factors that contributed to the

students' use of the SALL such as their positive attitudes towards independent learning and their motivation to learn English.

The knowledge of the area in which they undertook independent learning played an important role in their confidence with regard to the students' confidence to learn by themselves. The teacher is still an important person to give feedback and guidance in the learning process because the students had to acquire the correct knowledge and/or learning strategies in order to learn them and to use them in other situations. In the process of learning, the students should be provided with the chance to work on their own as well as to be taught by the teacher; they would feel insecure to be left learning without any help from the teacher because part of the learning is acquisition of the correct knowledge.

The data suggests that the RLTP played only a part in encouraging certain learning behaviour to happen; it might be able to change the students' belief about their ability to undertake self-study. However, the decisions to undertake self-study depended on other factors as discussed above.

5.5.3. Self-directed Behaviour and the Use of Metacognitive Strategies

The data indicates that the students were more self-directed and used metacognitive strategies more frequently at the end of the RLTP. While studying LNG 101, the emphasis on the students' awareness of their use of metacognitive strategies by having the students report their use of metacognitive strategies revealed how they used metacognition to handle the English tasks. The data indicates that while self-regulating their learning, the students tended to plan how to do the tasks. They monitored their performance in order to detect the difficulties but they were able to change only grammatical structures and spelling; they still had problems with idiomatic expressions. The data suggests that the students used person knowledge, task knowledge and strategy knowledge while dealing with the task. Helping them to be aware of metacognitive strategies might help them to think about their learning process more explicitly.

However, because of the time constraints the author did not get to the stage of helping the students to improve their learning strategies after they had analysed their strategies and had become aware of how they used the strategies.

The data from the learning plans suggested the problems of delivering the RLTP. Because the author wanted to emphasise goal-setting so that the students would be more self-directed in their learning as they had to think about the learning objectives and try to achieve the objectives on their own, she handled this task by having the students do everything by themselves. When the students were not able to achieve the learning goals in the first learning plan, she let them analyse the problems themselves and then draw up the next learning plan, which was more realistic for them. The data from the comparison between the two learning plans indicated that the teacher might have to get involved in the process of planning if she wants the students to learn how to make a good plan. There was some indication that the students had inadequate knowledge about certain areas, which affected the overall quality of their plan such as materials for the activities to achieve their objectives or how to plan the time more specifically. When the students formulated their learning plans, the author did not get involved in their decisions; she let them do it on their own. The experience from formulating their own learning plan and analysing the problems in order to revise their learning plan to be a more feasible one might have enabled the students to be aware of the importance of planning but did not help the students to know how to make a good plan.

5.5.4. Attributions for Success and Failure

According to attribution theory, a person's attributions for his/her success and failure influence his/her expectations for future success and his/her motivation (see Chapter 2, pp. 64-65). At the end of the RLTP, the data indicated the change in the students' attributions for success and failure to their ability, task difficulty and the teacher. The students' attributions for success and failure to their ability and task difficulty might indicate their perception of the change in English tasks which required them to use productive skills, i.e. writing more than when they studied in secondary

school. The tasks in LNG 101 were open where the students were able to write anything within a broad scope and they were able to choose the topic they were interested in (see Table 3.1.: Psychological Preparation). This aspect might make the students more aware of their proficiency as well as the difficulty of the tasks. According to attribution theory, the students would be motivated to do the tasks in the future if they attributed their success in doing the task to their ability and their coping with the task. However, the data did not indicate whether the students attributed the positive outcome to their ability and task difficulty; it only suggested that they thought that their ability and the task difficulty had an effect on their success and failure.

With reference to the students' attribution for success and failure to the teacher, the data from the interviews indicated that the students valued the teacher's rapport with them and her personality when they expressed their attitudes towards the teacher. Generally, they needed the teacher only to give suggestions and feedback in addition to giving knowledge. Therefore, it was possible that the change in the students' attitude towards their attribution for success and failure to the teacher might have come from the change in the traditional teacher-student relationship which made the students feel closer to the teacher and feel easy about consulting the teacher when they had problems in learning.

In Thai society, teachers are regarded as important in the teaching/learning situation. One of the factors that characterise the relationship between teacher and learner is the teaching/learning process which had its origin in the temple, where the monks were the first teachers transmitting knowledge. The monk was highly respected and revered by the lay community (Simon, 1990: 1-2). This helps to explain why teachers in Thailand are well-respected members of the community. That is why the terms *khru* and *acharn* in the Thai language which are used to address the teacher mean *'he who teaches disciplines.'* (Rachabanditsthan, 1982: 171). It can be said that the roles of both teacher/monk and learner/layman were to a large extent determined by their social status; the teacher/monk possesses knowledge and the learner/layman receives his

teaching. In other words, the teacher is the giver of the knowledge whereas the learner is the receiver of that knowledge. In a traditional classroom context, the students have to pay respect to teachers and they are afraid to ask any questions because of the distant relationship between teachers and students as well as the unequal status between the two parties.

The results from the interviews indicate that such attitudes still exist. One of the able and attentive students mentioned this attitude during the interview, saving 'I think my English is better. When I studied in high school, I dared not ask the teachers questions.' The interviews also indicated that the students felt more relaxed in the atmosphere where the author lessened the distance through having more rapport with them. They described this relationship as 'warmer and freer' and tended to have more contact with the author. This relationship seemed to be necessary for the students who were going through the process of developing learner autonomy as suggested by Cotterall (1995: 220-226) that the use of dialogue between teacher and students helped to provide psychological preparation to foster autonomy. Establishing a personal relationship between teacher and learner was one of the purposes she aimed at (see Chapter 2: Psychological Preparation in Practice). Not only dialogue but also support from the teacher through encouragement and feedback is regarded as important for fostering autonomy (Cotterall and Crabbe, 1992: 17). It can be inferred from the data from the student interviews that the students might have perceived the support the author gave to them.

5.5.5. Approaches to Learning

It is desirable to encourage the students to adopt a deep approach to learning because it indicates that the students try to seek meaning while learning and they are actively interested in the course content by trying to understand the ideas for themselves, which enables the students to learn better. It has been found that the learning context the students are encountering and the content of the task play a role in the students' approaches to learning (Entwistle, 2000, Biggs, 1999). The findings in this study also

support the idea of the effect of the learning context on the students' approaches in learning. The data indicated that the subjects adopted a deep approach to learning more than the first year students when studying the same course. This finding together with the data from the student interviews indicated that the author provided the learning environment which encouraged freedom in learning when she delivered the RLTP. Learner autonomy which the author tried to encourage in LNG 101 might have affected the subjects' approaches to learning as it also constituted the learning context.

In addition to freedom in learning which was provided by giving choices, allowing them to make decisions in learning and sharing their opinions, and having them work in groups, it was speculated that the nature of the tasks, how the tasks were delivered and the assessment process might also contribute to creating the learning context although there was no evidence of the subjects' perception of these matters. In LNG 101, the learning process and the tasks required the students to apply their existing knowledge of language together with the new language patterns which they learned in the unit to complete the tasks. In other words, the learning process required the students to acquire language patterns as well as to demonstrate their understanding of the language to complete the tasks. Both the subjects and the first year students encountered the tasks of the same nature. Although there was not much evidence of the subjects' perceptions of how the tasks were delivered and how the assessment was handled (see 5.4.), the data from the interviews with teachers who taught LNG 101 at the same time as the author suggested the difference in the process of handling these two aspects. With reference to how the tasks were handled, the data from the teacher interviews indicated that the way the choices were given and the involvement of the students in the decisionmaking process were different (see Table 3.1: Psychological Preparation). The choices the author gave to the subjects were wider and she tried to be involved less in the decision-making process while doing the project.

Regarding assessment of the tasks, the author focused on fluency rather than accuracy, i.e. she focused on how well the students communicated instead of comparing

the students' tasks with the teacher's version. In addition, she involved the subjects in deciding on the assessment criteria as well as involving them in self- and peerassessment.

5.6. Transfer to Other Learning Contexts

The author wanted to discover how far the students transferred what they had learned from the RLTP to other learning contexts, i.e. another English course and their engineering studies. This transfer indicated the effect of the RLTP.

5.6.1. The Effect of the RLTP in the English Language Learning Context

In the following semester after the RLTP was completed, the students had to take one of the three elective English language courses, i.e. Basic Study Skills, Communicative Writing in EST and Basic Reading in EST. Since these three courses were different in various ways, it was possible that the choice of the course affected the degree to which the students could demonstrate their autonomy and/or self-directedness. As mentioned in 1.1.5. the Department of Languages has tried to include elements of learner training in every English course, and so the learner training elements may be seen in these three elective courses but the degree and the manner of the learner training are different in each course (see 4.2.3.3.1.).

The investigation into whether the subjects still used what they had learned in the RLTP was conducted by interviewing the subjects and the English teachers of the courses they were taking by looking at their self-directed behaviour such as how they dealt with the problems, how they used metacognitive strategies as reported by both the subjects and the teachers and their use of the SALL. The teacher interviews were based on their comparison between the subjects' behaviour and the other students' behaviour in the same class. It would have been better if the author had obtained the same kind of data from other students who were studying in the same class as the subjects but had not been through the RLTP. Then she would know whether the subjects really performed differently from the other students and whether the subjects performed better because

they had been through the RLTP. The author did not include this aspect in the research design because there were many variables, in addition to not being exposed to the RLTP, that might affect the other students' behaviour, e.g. their prior educational experience and their motivation to learn. Therefore, it might be difficult to explain the factors contributing to the other students' behaviour.

• Self-directed Behaviour

The data on self-directed behaviour was obtained in Stage 1 of the follow-up study by interviewing the teachers who taught LNG 102, LNG 103 and LNG 104 and the subjects who took these elective courses. The data indicated that the nature of the courses had an effect on the subjects' demonstration of their self-directedness. With regard to the subjects' **awareness of learning objectives**, only the LNG 102 teacher was able to give this information as the course emphasised this aspect.

'I ask the students to think about learning objectives both before and after the tasks. I can tell that about 70% of the subjects are able to state learning objectives but some of them do not speak out.'

Regarding the subjects' **dependence on the teacher while learning**, the teachers reported the areas they tended to ask for help from the teachers. The answers from those teachers suggested that the subjects were not too dependent, i.e. the subjects asked questions only when they did not understand what they were doing. The teachers seemed to think that the subjects were independent in their learning especially when they engaged in a self-study activity such as the SRA.

'The students do not ask me the meaning of vocabulary much. They tend to check with me whether they are going on the right track.' (LNG 102 teacher)

'When doing self-correction of journal writing, the students tend to ask for reassurance from me. They ask questions when they do not understand.' (LNG 103 teacher)

'They ask me to check their understanding of the tasks and some vocabulary... I think the subjects are quite independent when they do the SRA. They hardly ask me for reassurance.' (LNG 104 teacher)

'They ask about the meaning of vocabulary... I think the subjects are quite independent when they do the SRA... they are attentive when doing the SRA because the criteria are clearly explained.' (LNG 104 teacher)

The author was also interested in whether the subjects were able to **do self-analysis in the exercises that dealt with language awareness** because the author had involved the subjects in those activities while taking LNG 101. It was hoped that teaching the subjects to analyse grammatical mistakes and discussing the possibilities of correcting them would help the subjects to be more self-directed because they would become more able to analyse their own language problems. The elective course teachers reported on the subjects' ability to do self-analysis as follows:

'I think the TME students can do self-analysis because when I ask them to correct the mistakes of the sentences I write on the board, they can do it with little guidance from me.' (LNG 102 teacher)

'Talking about the ability to do self-analysis, some students can correct their work.' (LNG 103 teacher)

'The students need some guidance from me when they do the self-analysis exercises.' (LNG 104 teacher)

'I think the subjects are able to do self-analysis with some guidance from me.' (LNG 104 teacher)

The answers of the teachers indicated that they considered the subjects relatively independent in the learning process. What the subjects needed from the teachers was only reassurance about whether what they were doing was correct or not. However, the data from the teacher interviews which came from their observation and comparison between the subjects' behaviour and the other students' behaviour in the same class did not indicate a clear distinction between the subjects' behaviour and the other students' behaviour. Although the data did indicate that the subjects were to some extent selfdirected and independent, it did not indicate that the subjects outperformed the other students in the same class.

The data from the student interviews revealed two aspects of self-directedness; how the subjects solved problems in learning and how they used metacognitive strategies in the English class.

Table 5.14: Students' Solving Problems in the English Language Learning Context

The data in the table below gave information of how the students solve problems arising when they learned English.

Category	Quotations	Number of Responses
Analysing the problems in order to find the cause of problems	'I solve the problem by starting from myself first. I try to find out what the problem is.'	8
Working more on the areas they had problems with (indirectly indicating the analysis of the problems before solving them)	'I try to improve my weaknesses. For example, if I have problems with vocabulary, I'll check its meaning in the dictionary, jot it down and memorise it.'	5
Vague answers but indicating that they students tried to solve their problems	'I solve the problem by practising English more.' 'I try to improve my weaknesses by working harder such as reading more.'	18
Responsible for solving the problems by seeking help from other people	'I try to improve my weaknesses by consulting friends.'	2
Responsible for solving the problems on their own but was not successful	'I used to think about improving my weaknesses but it was not successful. I did that by trying to find the answers myself before asking other people.'	1
Wanting to improve the weaknesses but too lazy to accomplish it	'I tried to improve my weaknesses but it didn't work because I was lazy and bored of it if there was nobody encouraging me.'	2
Not interested in solving the problems in learning English	'I won't improve my weaknesses because I'm lazyno time.'	2
Not mentioning how to solve the problems		9

Not all the students mentioned how they solved the problems or improved their weaknesses in studying English. Those who described how they solved the problems mentioned analysing the cause of the problems and working more on the areas they had problems with. Some students mentioned asking help from friends or a teacher after they had become aware of their problems. Many students tended to think that their problems arose from not working hard enough. Therefore, they stated rather vaguely about improving their weaknesses; for example, they mentioned doing more exercises or reading more. In addition to showing their responsibility for their problems, the students' answers also reflected their motivation to learn English because a few students mentioned that they tried to improve their weaknesses but they were not successful because of their laziness. A few students mentioned that they were not interested in improving their weaknesses.

Table 5.15: Students' Use of Metacognitive Strategies While Taking Another English Course

Using metacognitive strategies in the learning process could indicate the students' self-directedness. The data presented in the table below was obtained from the student interviews.

Category	Quotations	Number of Responses
Using metacognitive strategies because of -requirement of the course -nature of the course allowing them to use the strategies -pressure from too much work -nature of the task such as a group work task -the strategies being a part of the normal process in learning	'I use metacognitive strategies when I have a lot of tasks and homework. If I don't use them, I will not be organised. These strategies help me finish the tasks and the homework more quickly.' 'I use metacognitive strategies with some tasks. It's not necessary when the tasks are easy.'	22
Not using metacognitive strategies because of -laziness -no time -not in favour of the courses they were taking -the task being simple -not knowing how to use them	'I don't use metacognitive strategies because I don't know how to. When we took LNG 101, the teacher gave us the worksheets as a guideline for us to use metacognitive strategies.' 'I don't use the strategies because the tasks we are doing are not complex.'	25

Fewer students reported that they used metacognitive strategies in the English course which they were taking as was illustrated from their answers which indicated their attitudes towards the use of these strategies. Some of the students might have thought that employing metacognitive strategies was time-consuming because they mentioned *laziness* and *no time* as their reasons not to use them. Moreover, *Not in favour of the course* was the reason that suggested that some of the students thought that

they had to either make an effort or spend time when using metacognitive strategies. However, some students showed that they used metacognition to analyse the tasks and because the tasks were too simple to use metacognitive strategies, they correspondingly did not use them. This reason also suggested that these students thought that metacognitive strategies would be used only when the task was complex. For those students who said that they did not know how to use metacognitive strategies, their answer indicated that they did not perceive methodological preparation provided by the author.

For those who reported their use of metacognitive strategies while learning English, their answers also indicated their attitudes towards these strategies, i.e. the strategies were useful to handle complex and important tasks and that using metacognitive strategies might take time and effort. Some students revealed their use of task knowledge and strategy knowledge to evaluate the task before making decisions on whether they should plan to do the task or not. For those who mentioned the requirements of the course as a reason for using metacognitive strategies, it indicated that the learning context played a role in encouraging the students to be self-directed in the learning process.

Although the use of metacognitive strategies was one of the indicators of the students' self-directedness in their learning and there was a higher number of the students reporting that they did not use metacognitive strategies while taking English courses, the reasons for using or not using the strategies indicated that the learning environment played a role in their self-directedness. The tasks and the students' attitudes towards the course might encourage the students to use these strategies. For those who used metacognition to evaluate the suitability of the tasks, this indicated their self-directedness in learning in that they did not wait for the teacher to tell them what strategies they should employ to complete the tasks.

The subjects' use of metacognitive strategies to handle English tasks was also revealed in the teacher interviews. The teachers who taught LNG 102, LNG 103 and LNG 104 were asked about the subjects' use of metacognitive strategies especially that of planning when they did tasks. The author focussed on planning only because it was easy to observe; while planning the students might ask the teacher to check the objectives of the task and while the teachers walked around to check if the students started to do the tasks, they were able to see the students discussing how to do the task. It was too demanding to ask these teachers to detect whether the subjects monitored and evaluated the tasks; those teachers had to pay close attention to the subjects while they were doing the tasks. This process required a lot of attention and it might interrupt their teaching because generally a teacher has to pay attention to every student in class. The findings suggested that the subjects used planning when they did the group work tasks because the group work tasks required the delegation of jobs to each group member so that the tasks could be completed in time. In other words, the nature of the task played a part in the subjects' use of planning strategies.

'I think the nature of the course requires them to plan before doing exercises. The students normally plan by deciding who will be responsible for which part.' (LNG 102 teacher)

'No, I think the nature of the tasks does not need any planning.' (LNG 103 teacher)

'I think they make plans among the group members such as trying to do the task by themselves first and then discussing later.' (LNG 104 teacher)

'They do planning by helping each other finish it.' (LNG 104 teacher)

In addition to planning, the data from the LNG 102 record sheet revealed how the subjects monitored and evaluated their performance (see 4.2.3.3.1.). In the record sheet, the students had to record in English information about the number, the date and the types of activities, i.e. listening, speaking, reading and writing, they engaged in. They were asked to write down their comments on the activities they did (see Appendix B). Although the teacher allowed them to write anything they wanted to as their comments, most of the subjects tended to talk about the difficulty of doing the activity and how well they did it in addition to describing what the activity was about. Their answers indicated that they employed monitoring and evaluating while doing the activities. There were 12 TME students taking LNG 102 but the data came from 10 students because this activity was not compulsory; two students did not fill in the record sheet.

The author did a content analysis to indicate if the subjects monitored and evaluated their performance. The words which suggested that the subjects encountered or knew about the difficulties such as *'it's difficult, I don't understand'* indicated their monitoring of their performance. Examples of the words that indicated their evaluation were those that suggested that the subjects were talking about their ability to handle the task such as *'can, better, can't do it well.'* The typical answers are as follows.

'I listen about fundamental concept. There is something I don't understand.'

'I read Student Weekly Educational News. There are many new words which I don't know their meaning. So I have to read it twice and use the dictionary.'

'I make note about the reasons why diamond is expensive. My note is too long and the grammar is not correct.'

• Students' Use of the SALL

The data was obtained from student interviews in Stage 1 of the follow-up study. While going through the RLTP, the data indicated that more ME students than TME students used the SALL voluntarily. The author wanted to see whether the students still used the SALL when they were taking another English course and for what purposes. Because the requirement of the course to use the SALL was different, this factor might have had an effect on encouraging the students to use the SALL voluntarily. Since the data obtained during the fieldwork indicated difference in the ME and TME students' use of the SALL (see 5.3.1.), the author will present separately the data on how the TME students and the ME students used of the SALL while taking the elective courses.

Table 5.16: The TME Students' Use of the SALL

The TME students took LNG 102 and/or LNG 104 in the second semester. LNG 102 required the students to use the SALL through the project; the students had to go to the SALL to look at the old projects and to find information to do their projects. Those taking LNG 104 had to do the SRA in the SALL. The data indicated that the

requirements of the courses helped to encourage the students to use the SALL voluntarily, i.e. encouraging the students to be self-directed learners.

Category	Quotations	Number of Responses
Using the SALL because of the requirement from the course the students were taking	'I go to the SALL sometimes to do the project. If I don't have to do the project, I won't go to the SALL'	12
The course requiring the students to use the SALL, which encouraged them to use it voluntarily	'I go there to do the project. Sometimes I go there to read magazines or play games.'	10

Table 5.17: The ME Students' Use of the SALL

The ME students took LNG 103 and/or LNG 104. In LNG 103, there was no requirement for the students to use the SALL but the students were encouraged to use the grammar section to practise in the area they were weak at. Those taking LNG 104 had to do the SRA. Most of the ME students took LNG 103; therefore, they were not required to use the SALL. However, the interview data indicated that some subjects still used the SALL both for learning and for recreational purposes.

Category	Quotations	Number of Responses
Using the SALL because of the requirement from the courses they were taking	'I go to the SALL twice a week to work with the SRA. If I don't have to do the SRA, I won't go there because I don't have free time.'	4
The courses requiring the students to use the SALL which encouraged them to use it voluntarily in their free time	'I like to go to the SALL because I have freedom to work. I go there to work with the SRA. I also go there to read books and magazines I'm interested in.'	6
Students using the SALL to support their learning as recommended but not required by the teachers (voluntarily using it for learning purposes)	'I use the writing corner in the SALL to improve my writing but not very often because I don't have much free time.'	4
Voluntarily using the SALL for recreation	'I don't go to the SALL very often this semester because I don't have much free time. When I go there, I either read or listen to music.'	6
Not using the SALL -no time -teacher not taking them there -no guidance from the teacher -don't know what to do there	'I don't go to the SALL because I don't know what to do there.'	5

There were 10 students reported that they still used the SALL voluntarily for educational purposes. For the six students who used the SALL for recreational purposes, they did not come to use the SALL very often because they had no time. The findings indicated that the teaching/learning process played a role in encouraging the students to use the SALL, e.g. the requirements of the course, encouragement from the teacher, guidance from the teacher on how to use the SALL. Students' motivation and workload also played a role in their use of the SALL.

The findings concerning the students' self-directedness seem to suggest that both the learning environment, e.g. the tasks, the requirements of the course, encouragement from the teacher and the affective factors, e.g. the students' motivation and their favour of the course played a role in the demonstration of their self-directedness in the learning process.

5.6.2. The Effect of the RLTP on Students' Engineering Studies

The investigation of the effect of the RLTP in the engineering studies was carried out by interviewing the students about their perception of what they had learned in the RLTP and whether they were able to apply what they had learned from the RLTP in their engineering studies. The interview was conducted one year after the end of the RLTP. The data came from 48 students or 81% of the original subjects; four had dropped out of the university, and eight students did not show up.

The data indicated that the students perceived what they had learned in the RLTP in two respects: that related to English language learning and that related to learning such as learning how to plan, learning to do self-development, learning to think on their own and so on.

CategoryQuotationsHaving positive attitudes towards learning English because they had the chance to'I had good attitudes to learning English. I was able to use real English. The learning plan the teacher asked us to do was more serious and more realistic because we had to do what we had planned.'• do the task on their own • make real use of English • the teacher • learning how to use metacognitive strategies'I had good attitudes to learning English. I was able to use real English. The learning plan the teacher asked us to do was more serious and more realistic because we had to do what we had planned.'		Number of Responses	
		7	
Gaining more knowledge of English which made the students more confident to use English and knowing how to work systematically	'I had more knowledge of English. I also learned to think systematically and solve problems I had when I did the tasks.' 'I knew English more. I was able to use this knowledge to read texts. The teacher also taught us how to plan.'	10	
Encouraging the students to do self-study and think on their own	'The teacher encouraged us to think on our own and to do self-study. '	4	
Learning how to plan	'I learned how to plan when doing the task. I hadn't done any planning at all when I studied in secondary school. When studying LNG 101, I knew how to learn more systematically. I was able to think on my own.'	16	
Learning how to work in groups	'I learned how to do group work, helping each other solve the problem. The teacher also emphasised planning and objectives in learning.'	6	
Learning to develop self	'I learned how to develop myself because the teacher did not emphasis classroom learning. She always asked us what we did in order to improve English in addition to studying on class. She encouraged us to do self-study. I enjoyed learning outside class.'	3	
Enhancing motivation to learn through collaborative learning	'I knew that learning meant working with friends. I liked learning this way. I paid more attention in class and I enjoyed learning more. '	1	
Learning the content	'I learned the content which was related to the area I'm studying now. Teaching planning was not obvious.'	1	

Table 5.18: Students' Perception of the RLTP

The data suggested that the majority of the students perceived aspects related to learning, especially planning, which was one of the metacognitive strategies, as what they had learned from the RLTP. This evidence might support the data indicating that the students were more conscious about using planning than monitoring and evaluating when they talked about their use of metacognitive strategies in learning English (see Table 5.15). When asked if they were able to apply what they had learned from the RLTP in their engineering studies, many students referred to what they had learned from

methodological preparation especially planning (see 3.3.3.) and they stated that the pressure in university studies was the factor that encouraged them to use planning. The training on how to plan in the RLTP helped the students to plan in their learning more systematically and enabled them to use it at the early stage in their university studies. It can be inferred from the data that the RLTP enabled the students to realise the importance of planning but the learning environment, e.g. the pressure from the study had more effect on their decisions to use it. There were some students who mentioned the skills for doing group work as what they applied from the RLTP to doing engineering studies.

Table 5.19: Students' Application of What They Had Learned from the RLTP to the Engineering Studies

Category	ng about metacognitive es in LNG 101 g the students to etter'I use planning now. I think learning about it from LNG 101 helps me to use it better because it was clearer to me and I can use it at the early stage in my university studies.'t the early stage of g in the university t their study more importance of'I use planning now. I think learning about it from LNG 101 helps me to use it better because it was clearer to me and I can use it at the early stage in my university studies.'	
Learning about metacognitive strategies in LNG 101 enabling the students to -plan better -plan at the early stage of learning in the university -plan in their study more -see the importance of planning		
Using planning because of being reinforced from LNG 101 and the pressure from the university studies	'I plan more. I think if I did not learn how to plan in LNG 101, I still have to plan and do the self-study. But the hands-on experience in LNG 101 motivates me to plan more. In fact, I change my learning styles when studying in the university. I have to do planning and to do self-study.'	4
Planning because of the pressure in the university studies	'I use them because to be successful in engineering studies needs good planning.'	10
Planning because they had learned how to do it NOT because they had learned from LNG 101	'I had learned how to plan before coming to the university. So what I'm doing now is not what I learned from LNG 101.'	3
Skills used in doing group work tasks	'I can't use the content learned in LNG 101. What I use is the skills of doing group work tasks.'	7
Process for self-development	'I think when we learned how to do self-analysis and knew ourselves better, we are able to develop ourselves.'	1
No application		5

5.6.3. Summary of the Effect of the RLTP in Other Learning Contexts

The data indicated that the students applied what they had learned in the RLTP in the English language learning context more than in their engineering studies. This might be partly because the tasks were more or less similar to what they had done in LNG 101. However, the degree of application depended on the tasks that allowed the students to perform autonomously. Although the data indicated that the students were self-directed in their learning, e.g. responsible for solving problems, knowing learning objectives, engaging in self-study and so on, the comparison between the subjects and the other students in the same class did not suggest that the subjects outperformed the other students. The data also indicated that the learning context as well as the subjects' motivation to learn English played a role in their self-directed behaviour, i.e. their use of the SALL voluntarily.

With regard to their perception of the RLTP, the data indicated that the students mainly noticed and used the aspects provided in methodological preparation, e.g. planning. However, the decisions to apply what they had learned in the RLTP to their engineering studies were influenced by the learning environment they encountered, i.e. the pressure from the university studies. Their perception of a positive experience in learning English might be related to the increase in their motivation to learn English (see 5.2.). The data suggested that students regarded the RLTP as a tool that helped to reinforce the planning strategy that they had learned before coming to the university; it enabled them to use the strategy more systematically and realise the importance of the strategy.

5.6.4. Self-directedness in Engineering Studies

The data was obtained from student interviews in Stage 2 of the follow-up study. In addition to investigating the effect of the RLTP on the students' learning, the author wanted to know whether the students were self-directed while doing engineering studies and what factors might have contributed to their self-directedness. The author looked at features such as need for the teacher, engaging in self-study, problem solving and using metacognitive strategies to indicate the students' self-directedness. The author asked the students to give opinions of how important it was to have a teacher in their engineering studies, to describe how they undertook self-study while doing their engineering studies, to discuss how they solved practical problems in the workshop and to list how they used metacognitive strategies to deal with their engineering studies.

• Need for the Teacher in Engineering Studies

How the students needed teachers in their learning was investigated as it reflected their autonomy in the learning context. The findings suggested that in the engineering studies where the theory is complicated and where application is emphasised, the teacher is regarded as a person who helped the students to deal with the theory and the application successfully. Since there was an overlap of the categories, some responses might belong to two or more categories; the number of responses in this table was the number of student responses, which exceeds the number of the actual interviewees (see 4.3.3.: Using the Inter-coder).

Category	Category Quotations	
Giving lectures, suggestions, consultation and helping the students when they had problems	'I want the teacher to give lectures and help us when we have problems.' 'Giving lectures and talking about application of the theory. They should allow us to ask questions when we have problems.'	35
Teaching application of the theory	'I want the teacher to teach theory clearly and focus more on the application because engineering studies emphasise application.'	12
Explaining the theory	'Give explanation when the students don't understand.'	5
Giving feedback	'I want the teacher to give lectures, feedback and ask us questions.'	1
Covering only the main points and letting the students to do self-study	'I want the teacher to cover all the main points. Then we will do self-study on our own.'	3
Giving more guidance to the students (not wanting to do self-study)	'I like teachers who do not teach the theory only. I want them to touch on how to apply what we learn in class to the real situation. I want them to give us homework rather than let us do the self-study because we won't do	2

Table 5.20: Students' Need for the Teacher in Engineering Studies

	it if we don't get any mark. I think teachers don't give enough guidance when they let the students work on their ownwe won't know if we are on the right track or not.'	
Related to teaching styles; e.g., active, paying more attention to the students	'I want the teacher to teach actively so that we will want to learn more.'	2

• Engaging in Self-study

The author investigated this matter in relation to the students' learning goals in order to see if there was any connection between the students' decisions to engage in self-study and their learning goals. The findings suggested that there was some connection between the students' behaviour and their learning goals but this was not so for every student. Those who aimed at getting good grades undertook self-study, e.g. practising solving problems or reading texts assigned by the teacher in order to pass the exams. It can be inferred from the findings that motivation, both intrinsic and extrinsic, played a role in encouraging the students to be self-directed in the learning process.

Category	etting good grades in order'I want to have good grades. I do self-study when I don't understand the content of any course in order to get more information and to have more understanding of what I'm studying. I choose to do self-study in difficult courses.'understand the content of any course in order to get more information and to have more understanding of what I'm studying. I choose to do self-study in difficult courses.'understand the content of self-study on exts relevant to the content lifficult subjects ourses they liked/were terested in practise solving engineering problems practise doing old exam papersunderstand the theory more clearly.understand the courses I'm interested in.'	
engineering problems c) practise doing old exam		
Passing the exams in order to graduate. Students would a) do self-study in -the courses they liked -difficult courses	'I want to graduate. I do self-study in the courses I'm interested in. I ask the teacher to recommend me the books I should read.'	13
Having knowledge and experience. The students	'I try to have as much knowledge of the courses I'm studying as I can. I choose to do self-study in difficult	5

Table 5.21: 1	Students'	Engaging	in	Self-study
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doing the self study in the courses they liked/were interested in	courses.'	
Being able to work successfully. The students doing self-study in order to have more knowledge	'I want to be able to apply the knowledge learned to work. Grade is something that proves if we understand what we are studying and how much effort we have put into studying. I read lecture notes and English texts in order to know more. In class, the teachers cover basic knowledge only. They expect us to find information outside class. I do self-study almost in every course which is difficult.'	3
Wanting to invent things. The students doing self-study in difficult courses and practise solving engineering problems	'I want to invent things such as a robot. I choose to do self-study in the courses I have problems with. I practise solving problems.'	4
Goals ranging from learning well to being able to work but no self-study. The students concentrating on studying in class	'I want to graduate with honours. I don't do any self- study but I know what to read in order to pass the exams.'	5

• Students' Solving Problems in Learning

When the students were asked to explain how they solved problems in learning especially while working in the workshop, the findings indicated that many students tried to solve the problems on their own before turning to friends. Those asking the teachers said that they were not sure of themselves. It can be inferred from the answers that the engineering teachers also promoted students' autonomy by encouraging them to be independent from the teacher. The context where the learning problems occurred also played a role in the students' decisions whether to solve the problem on their own or to ask for help from the others. Since the question specified the context, i.e. in the workshop, some students referred to being afraid of damaging an expensive machine as a reason for asking either friends or the teacher.

Category	Quotations	
Students solving problems on their own before asking either friends or the teacher (some	'When we have a problem, the teacher tries to encourage us to solve it ourselves.'	34
indicating that the teacher	'The teachers try to encourage us to apply what we have	

encouraging them to solve the problems by themselves)	learned in class to solve the problemthink on our own.'	
Students solving problems by asking friends	'I ask friends before the teacher when I have a problem. The teacher wants us to do things correctly. I'll ask the teacher when I'm afraid of damaging the machine.'	7
Students solving problems by asking the teacher because they were sure of themselves	"When I have a problem, I'll ask the teacher before friends. I don't want to take risk solving the problem myself."	7

• Using Metacognitive Strategies in Engineering Studies

When asked about their use of metacognitive strategies, most of the students mentioned that they planned the study for the exams. Some students drew up learning plans. Some mentioned monitoring and evaluating. Five students said that they did not use metacognitive strategies. These findings also suggested that the students regarded planning as the strategy that enabled them to cope with the task, e.g. finishing the study for the exams, which they were encountering successfully. These findings reflected the students' attitudes towards metacognitive strategies, especially planning, that they were able to help them to be systematic in their learning.

Category	Category Quotations	
Using metacognitive strategies to -draw a learning plan -monitor while learning -evaluate themselves'I plan my learning roughly. I started to do it knew the results of the mid-term exams when I sta the first year. I now realise that the learning plan me to learn better.'		12
Planning the study for the exams	'I set a timetable to study for the exams. I write the timetable whenever I have problems of not being able to finish the study for the exams in time. I have done it since I took the National University Examination.'	31
Not using metacognitive strategies in learning	'I don't have any plan in learning but I attend every class. I think students have to be hard-working and organised in order to be able to plan their learning successfullyI'm lazy.'	5

Table 5.23: Students' Use of Metacognitive Strategies in Engineering Studies

The findings about the students' self-directedness indicated that they were acting autonomously in their studies because the learning environment encouraged them to do so. The encouragement from the teacher and the pressure with which they had to cope in order to be successful in their studies played a role in enabling the students become self-directed learners.

5.7. Summary of the Findings

The findings can be separated into three types: 1) the effectiveness of the RLTP obtained throughout the course and after the RLTP was finished, 2) the effect of the RLTP on the subjects' learning in other learning contexts and 3) their self-directedness in their engineering studies.

With regard to the effectiveness of the RLTP, the data indicates that the subjects were more motivated to learn English, then improved their attitudes to the independent learning mode and were more confident to learn by themselves. They were more self-directed by employing metacognitive strategies more often and adopted a deep approach to learning more than the first year Engineering students who did not go through the RLTP but through the OLTP. However, the subjects seemed to have developed apparent teacher-dependent attitudes by the end of the RLTP. This finding suggests that these teacher-dependent attitudes might either develop from the change in the traditional teacher-student relationship or the problems while the author was delivering the RLTP. The data indicates that providing freedom in learning through involving the subjects in the decision-making process, group work tasks, and allowing the subjects to share opinions in class had an effect on their motivation to learn English and adoption of the deep approach to learning.

The data also indicates that the teacher played a role in creating the learning environment which allowed autonomy, in enhancing students' motivation to learn English and in creating apparent dependent attitudes. The data suggests that the RLTP was effective as a tool to promote learner autonomy. However, the teacher also played an important role in the process of developing learner autonomy as she was the one who delivered the RLTP; she had to find every possible opportunity to provide autonomy. In addition, she had to plan steps to deliver the idea carefully as she saw from the data that the teaching process might have had an effect on the outcomes of the activities designed in the RLTP. The data also suggests the students' needs for the teacher in their learning although they appreciated the freedom in learning provided by the teacher. This finding suggests a balance between providing learner autonomy and teacher-directed learning in a formal educational context where the students expect to receive knowledge and feedback from the teacher.

With reference to the effect of the RLTP on the students' learning in other learning contexts, the data indicates that being exposed to the RLTP and the subjects' increase of motivation to learn English enabled them to perform satisfactorily in another English course. They were active, attentive and self-directed while learning; however, the data did not suggest that the subjects really outperformed the other students in the same class. The data also suggests that the nature of the course played a role in allowing the subjects to be self-directed in the learning process but at different degrees; the data suggests that the subjects taking LNG 102 seemed to demonstrate their self-directedness more as the tasks allowed them to do so. The subjects were able to apply what they had learned from the RLTP to the English language learning context more than in Engineering studies. This might partly be because the tasks in the English courses were more or less similar to those the subjects encountered when they took LNG 101. The data indicates that the subjects perceived what they had learned from the RLTP in relation to English language learning and the aspects that helped their learning; however, they applied the strategy of planning mainly to their engineering studies. They were aware of the usefulness of metacognitive strategies and said that the training provided in the RLTP enabled them to use the strategies systematically and encouraged them to use the strategies, especially planning, at the early stage of studying in the university.

While doing engineering studies, the data suggests that the subjects were selfdirected because the learning environment allowed them to be, i.e. the teacher encouraged them to solve their own problems and they had to plan their learning and their study for the exams in order to do well. The subjects' intrinsic and extrinsic motivation to learn also affected their self-directed behaviour. The data indicates that the learning environment influenced the students' behaviour.

It can be inferred from the above data that developing learner autonomy involves many factors, the students' motivation, the teacher and the learning environment. The RLTP was a tool to facilitate the process of promoting learner autonomy but whether it worked effectively or not depended on the teacher who delivered it. The development of learner autonomy should be carried out continuously as the learning environment enables the students to be self-directed. Therefore, if learner autonomy is an educational aim, it should be promoted in every course.

Chapter 6 Conclusions and Implications

Introduction

This research study aimed at investigating whether the revised learner training programme (RLTP) that the author devised to address the weaknesses of the original learner training programme would be better able to help the students to develop learner autonomy. The research was conducted to see the effectiveness of the RLTP and contributory factors that might influence the effectiveness of the RLTP in enabling the students to become autonomous learners in an English language learning context as well as the factors that might encourage the students to be autonomous in their other university studies.

This chapter will provide a summary of the research study and discuss issues arising from the study and the limitations of the study. It will also provide suggestions for further research and recommendations for developments in teaching and learning and the development of learner autonomy at KMUTT, the place where the research was conducted.

6.1. Summary of the Study

In this study learner autonomy was defined as the students' attitudes towards and ability in taking responsibility for their own learning, i.e. their willingness, confidence and their capability to take charge of their own learning especially in an independent learning mode. The concept of learner autonomy was related to effective learning in that promoting learner autonomy helped the students to adopt the deep approach to learning. This indicated they were active and more involved in learning, trying to associate their existing knowledge with the new knowledge and self-regulated in their learning, i.e. they would plan, monitor and evaluate their performance. Learning actively would help the learners to be interested in what they were doing and, because they acquired the knowledge and skills by themselves, they might be able to retain more of what they learned than passive learners. In addition, developing self-directedness, which is the behaviour of autonomous learners, was regarded as a self-developmental process. This process would be beneficial for the students not only in learning in the university but for life-long learning where there is no teacher to help them.

The revised learner training programme (RLTP) was employed as a tool to facilitate the students' development of learner autonomy. The RLTP was the revised version of the original learner training programme (OLTP) which had been used in the Department of Languages to develop learner autonomy. The author devised the RLTP by trying to solve the weaknesses of the OLTP and added new elements to make the learner training more effective (see Chapter 3). The RLTP aimed at providing a learning environment that promoted self-determination such as involving learners in the decision-making process, helping the students to be confident to learn by themselves and emphasising metacognitive strategies which were regarded as important strategies for self-directed learning. Therefore, the RLTP consisted of both the activities and the interaction between the teacher/author and the students as a part of providing a learning environment that promoted self-determination.

The RLTP was integrated into the course *General English for Science and Technology (LNG 101)*, a compulsory English course for Engineering students at KMUTT. The author delivered the RLTP by teaching LNG 101 to two groups of Engineering students, Tools and Materials Engineering and Mechanical Engineering students, for four months.

The data collection was done in two phases: in the fieldwork when the author taught LNG 101 and in the follow-up study, after the RLTP finished. The data collection during the fieldwork was conducted before the RLTP started, throughout the course and immediately at the end of the RLTP in order to see the factors that might affect the effectiveness of the RLTP. The follow-up study was separated into two stages: Stage 1 and Stage 2. Stage 1 was conducted four months after the RLTP finished and when the students were taking another English course, in order to see whether the students transferred what they had learned from the RLTP to another English learning context. Stage 2 was conducted one year after the RLTP finished in order to see whether the students were able to apply what they had learned from the RLTP to their engineering studies, and to determine the students' self-directed behaviour in the engineering studies.

6.2. Issues Arising from the Results of the Study

This section discusses two main issues that arose from this study. The most important issue is the development of what appeared to be teacher-dependent attitudes while the students were undertaking the process of developing learner autonomy. The other issue is whether learner autonomy is universal or appears in a culturally specific form. Adopting a 'Western concept' in a culture which is different from the culture from which the concept originated has led to a debate on the appropriateness and transferability of such concepts. This was an issue in this research study.

1. Learner Autonomy Creating Apparent Teacher-dependent Attitudes

In this study, the students were encouraged to develop and exercise autonomy in the learning process; however, the degree of learner autonomy was limited to the specific learning context and it was directly encouraged by the teacher/author. The results of the study indicated the benefits of providing learner autonomy, in that it motivated the students to learn, which in turn helped them to learn actively, and the process of learning was meaningful for them, as seen from the greater readiness to adopt a deep approach to learning LNG 101. However, the data indicated that, although the students appreciated the freedom in learning provided by the teacher/author, they were more likely to attribute their success and failure in learning to the teacher at the end of the RLTP than at the beginning. In other words, they seemed to be more dependent on the teacher/author, because they still regarded the teacher as supporting the learning process. Therefore, it is important to further investigate the nature of this apparent teacher-dependency. The first point to be considered is what form of teacher dependency was actually created.

The data which indicated that the students were more likely to attribute their success and failure in learning to the teacher came from the students' rating on the questionnaire item '*If I learn a lot in this course, it will be because of the teacher.*' The nature of the question was fundamentally ambiguous in that it only indicated the students' opinions, i.e. the teacher played an important role in their learning, but did not indicate the reasons why they thought so. Therefore, the author used the data from the student interviews to investigate the form of teacher dependency.

From the findings, the teacher-dependence appears to have come mainly from the students' need for reassurance and advice in the learning process, in order to be able to complete the tasks and to be more confident in the new learning environment. Yet this form of teacher dependency did not affect the students' development of learner autonomy. The students were still willing to make their own decisions in their learning and in solving their own problems; this behaviour indicated that they were taking responsibility for their learning. The reassurance from the teacher was regarded as important for the students, especially as they moved towards a new approach and the challenges they encountered in the process of developing learner autonomy. Therefore, the teacher-dependent attitudes rather reflected the close relationship between the teacher/author and the students; it indicated the attempt of the author in trying to break down the barrier between the teacher and the students which arises from the traditional teacher/student relationship. This process was regarded as essential for the process of developing learner autonomy.

It should also be noted that there is a continuum between teacher-directed learning and learner autonomy; helping students to develop learner autonomy means helping them to move along that continuum, to an extent which depends on their readiness. While moving along the continuum, the students will need support from the teacher, but there are varying degrees and forms of teacher dependency.

There were many factors that might contribute to creating these apparent teacherdependent attitudes. With regard to the context of language learning, the teacherdependent attitudes might arise from the students' being exposed to the environment where they had to struggle to fulfil types of communicative tasks with which they were not familiar. Littlewood (1984: 58-59) remarks that, in an environment when learners feel anxious or insecure, there are likely to be psychological barriers to communication. In a typical language classroom, learners are often asked to perform in a state of ignorance and dependence, e.g. they do not know how to pronounce the words nor apply the rules correctly; therefore, they have to depend on the teacher. Such a situation may engender in students feelings of helplessness. A sympathetic teacher and a co-operative atmosphere are able to overcome such feelings, at least to some extent.

When the students studied LNG 101, the emphasis of English language learning was on tasks which required the students to think and apply the language knowledge they had in completing them. This situation was new to the students because their prior experience in learning English focused on reproduction of the language rules rather than applying the rules to complete tasks. Therefore, the students had to find a resource person to check whether they were choosing the right expressions and/or vocabulary to express themselves. In this case, the students decided to seek that assistance from an approachable and accessible teacher, who was regarded as a language expert in that situation. Such dependence might be regarded as a strategy the students employed to help them to communicate successfully. In fact, the students could choose to depend on friends or the teacher for help, but they chose to turn to the teacher. However, the factor that possibly affected their decisions was the teacher-student relationship; some students mentioned in the interview that they would ask the teacher for help when they had problems in learning, if they felt '*close*' to the teacher. Thus, the students' development of teacher dependency might come from this emotional bond.

Since the status of teachers and students in Thailand is not equal (see 5.5.4.), the support from the teacher/author in a learning environment, where the students still had a feeling of helplessness because they were encountering unfamiliar tasks, would enhance the students' dependence on her. Although the author employed co-operative learning to help the students handle the frustration which some students might have in trying to adjust themselves to the demands of the English tasks, and she tried to help them to be self-directed in their learning, the students still remained attached to the teacher/author.

This situation does not imply that the teacher should change the tasks to those the students are familiar with. The teacher should give support through the use of group work, teach the students how to use the dictionary to check the language use or the meaning of vocabulary, and provide enough dictionaries and grammatical references so that the students are able to fulfil the tasks on their own. In other words, the teacher should gradually withdraw her expertise. In this way, the teacher can create a relaxed and supportive atmosphere in class, and at the same time provide the resources and the help the students need to develop their self-directedness.

When the students depended on the teacher as a convenient resource in the learning process, it could not be regarded as a sign of their not developing learner autonomy. In this study, the students still had positive attitudes towards learner autonomy, and they were to some extent self-directed in their learning (see 5.3.2.). If teacher dependence had been related to the students' learning behaviour, that would have indicated that they were not autonomous learners, e.g. the students asking for help from the teacher to assess their work because they were not confident, it would be serious because it might indicate that they did not have positive attitudes towards learner autonomy.

The analyses indicated that the students did not totally resist learner autonomy; indeed they liked some independence from the teacher, as seen from their appreciation of co-operative learning. Some said that they were able to learn from their friends, while others mentioned the freedom they felt while doing group work tasks. Their opinions about co-operative learning implied that they did not resist learner autonomy; indeed, they liked some independence from the teacher. The four-month fieldwork might then be regarded more as a transitional period for the students to adjust to a learning environment which required them to move towards becoming autonomous learners. During the fieldwork the students might be at a stage of dependence before moving towards independence, as suggested by Brundage and MacKeracher (see Chapter 2: p. 46).

Another factor which contributed to the students' development of teacherdependent attitudes might be the deep-rooted ideas about learning English, and about language teachers, which the students hold. From an informal talk with some of the students, they mentioned their dislike of English and their bad experience from being taught to remember the rules with no understanding of their use, because the formal evaluation of the subject had hitherto focused on grammatical structure. Therefore, they saw the teacher as a person who knows everything, i.e. all the rules, and they were thus forced to depend on the teacher for that knowledge. When the students were exposed to an English class where they had more freedom in learning, although they appreciated this experience, they still felt dependent on the teacher. This might be, in part, because of firmly ingrained attitudes towards English language teachers.

Providing learner autonomy requires the teacher to be flexible and approachable because s/he has to negotiate with the students and listen to the students' opinions. Such a personal approach was able to lessen the distance between the teacher and students. Providing learner autonomy does not mean choosing the tasks that focus on learner-centredness only. Teachers' attitudes play a role in creating a learning environment where the students feel that they have self-determination. One of the students mentioned in the interview that '*I can't explain how the teacher gives freedom in learning to us*. *You can feel it when you are in class.*'

This teacher-student bond which was created as a result of the efforts of encouraging learner autonomy seemed to be essential in the context of this research study because it helped the students to cope with the difficulties they might face from learning English in the university. In the process of self-direction, the students needed support from the teacher as seen from the data indicating that the students regarded the encouragement and the feedback from the teacher throughout the learning process as being very important. This finding indicated that scaffolding from the teacher was necessary and effective for the process of developing learner autonomy (see 2.3.2.).

The other factor that might create the apparent teacher-dependent attitudes came from the learner training process. In this research study, the author trained the students to be more independent in a collaborative way, through negotiating with them. In other words, she did not withdraw herself or her expertise from the process of encouraging the students to develop learner autonomy. So, this type of training may well increase apparent teacher-dependency while encouraging student autonomy in a short period of time. When encountering these teacher-dependent attitudes, it seems important for the teacher to be aware of the situation and try to find other means to help the students to become more self-reliant. At the early stage of developing learner autonomy, the teacher may have to balance between teacher-directed learning and learner autonomy, i.e. the teacher helps the students to the extent that they are able to direct some of their learning with confidence. Providing psychological preparation and methodological preparation is seen as an intervention from the teacher to enhance the students confidence to be self-directed learners and to teach them skills needed for self-directed learning. Therefore, the teacher is needed in the learning process as an instructor, a facilitator and a counsellor to give knowledge where appropriate, but still to conduct activities that encourage learner autonomy. Then the teacher can gradually withdraw herself from intervening the learning process so that the students will be more independent.

As mentioned earlier a four-month period of learner training might not be enough to help the students move very far along the continuum from where they started, but the author thinks that the continuation of learner training to develop learner autonomy might be able to help. It seems important to incorporate aspects of developing learner autonomy in every course in the university studies, not only in English courses. The findings about the students being autonomous in their engineering studies supported this suggestion that a suitable learning environment and encouragement from the teacher were able to promote learner autonomy.

2. Is Learner Autonomy Universal or Cultural?

Many authors have raised the issue of whether learner autonomy is a universal concept that is appropriate for any educational context, or is only a western cultural construct (Riley, 1988; Little, 1999, Littlewood, 1999). The debate on this issue can be explored by looking at the concept of universalism versus relativism and individualism versus collectivism.

In universalism, any concept or practice, although it originates in the western context, is valid in any context; that concept or practice is considered as universal. Relativism regards a concept and a practice as culturally situated, so that it can be understood and is valid only in the context of the culture in which it evolves. In this research study, learner autonomy is related to desirable learning behaviour that enabled the students to learn effectively. The author thinks that the notion of having the students take responsibility for their own learning, self-direct their learning, learn meaningfully is surely desirable for education in any culture and in any subject area.

In this study, the issue of culture arose when the author began to consider the degree of learner autonomy she expected the students to develop, and the goal of learner autonomy. Apart from the constraints of the context, which were the predetermined syllabus, the requirements and assessment of the department, the design of activities was done with consideration of the Thai culture. Two major concerns were the role of the

teacher and the students' autonomous behaviour, because culture affects the students' beliefs and their behaviour. Thai students, like many other Asian students, tend to be passive, reticent, and reluctant to openly challenge authority, especially the authority of teachers. This may come from the teaching/learning process that had its origin in the Thai temple, where the monks were the first teachers. This concept helps to explain why, even today, teachers in Thailand are well-respected members of the community. It can be said that the role of both teacher and learners are determined by their social status, the teacher being in possession of a body of knowledge and the learner being there to receive the teaching (Simon, 1990: 2). In this study, therefore, learner autonomy was still mediated by the teacher and the students were invited to share the tasks which were originally of the teacher's domain such as making decisions on how to do the tasks, setting up the criteria for evaluation, and assessing their friends' work. Developing learner autonomy did not go so far as allowing the students to set their own learning agenda, which has been introduced in some Western educational contexts.

The practice of learner autonomy, a concept which originated in the Western culture, is different according to the educational context. In other words, there are degrees of learner autonomy which can be adopted to suit any educational context. This argument advocates the idea that learner autonomy is universal.

The issue of collectivism and individualism is seen in the difference between the role of the individual and the role of the group. In Western culture, learner autonomy arises from individualism where individuals can claim the right to express themselves, make personal choices and strive for self-fulfilment; it is individualist oriented. Western culture thus supports the *independent* self who tends to express individual views, be willing to express open criticism, and be comfortable with confrontation. Therefore, the practice of developing learner autonomy in the Western educational context focuses on learner individuality.

However, when this concept was adopted in Thailand where the national culture tends towards collectivism, i.e. a culture where people are born into collectivities, and where the ties among individuals are very tight, such culture influenced decisions in creating the degree and the direction of learner autonomy. In a collectivist oriented culture, individuals expect to accord first priority to the views, needs and goals of their group (Hofstede, 1991: 49-78). This culture supports the *interdependent* self who tends to pay attention to the group, to see the importance of saving others' faces and his own face, and to feel comfortable in unequal relationships (Markus and Kitayama, 1991: 18-47).

The awareness of living and working in a collectivist oriented culture like Thailand affected the degree and the type of learner autonomy adopted in this research study. The author chose the situation which would make the students feel comfortable to be autonomous learners. Group work tasks were used to provide freedom in learning and the author attempted to encourage the students to be self-directed in the learning process through planning, monitoring and evaluating their learning rather than setting their own agenda in learning. Littlewood (1999: 75-76) regards this form of autonomy as 'reactive autonomy' where the students do not have to create their own direction in learning, but they are expected to organise their resources autonomously to reach their goals. They can learn without being pushed by the teacher. So they learn collectively and co-operatively.

In summary, this research study showed that the issue of the concept of learner autonomy being universal or cultural concerned two levels of consideration. The first level was wider and it involved the adoption of the concept of learner autonomy. At this level, the concept of learner autonomy was regarded as universal in that it is related to effective learning which is the aim of any educational institution. At the level of how to put the idea into practice, cultural appropriateness seemed to be an issue because the adoption of the concept is related to the specific culture in which the students and the teacher are living.

6.3. Limitations of the Study

This study was designed as a case study to investigate the RLTP in depth in order to gain insights into how the students developed learner autonomy with the help of the RLTP. There were limitations in conducting the research as follows:

- the context of the study was classroom learning and the author had to integrate the RLTP into the normal LNG 101 course. In so doing, meeting the requirements of the course, e.g. covering the content of the units before the mid-term examination and preparing the students for the examination was sometimes the first priority when drawing up lesson plans. Instead of being able to spend more time on discussing the students' problems such as when asking the students to revise their learning plans (see 4.2.3.1.: Learning Plan), the author had to do this activity as an individual task by having the students analyse their performance and then revise their learning plans because it took less time than group discussion. This limitation might affect the outcome of the activity.
- The RLTP was conducted in the first semester when the students had to participate in the extracurricular activities which sometimes took up the normal class hours; therefore, the author had to reduce the time for some activities such as the learning plans (see 4.2.3.1.: Learning Plan) and self-study activity in the SALL. In the second half of the semester, the author was hardly able to introduce any additional activities as a part of delivering the RLTP because she had to spend time finishing the units required for the final examination and the students sometimes took the normal class hours to do the extracurricular activities. Therefore, she had to use the project as a tool to provide learner training. The author allowed as much freedom as possible for the students to do the project by interfering as little as possible in their decision-making and drawing their attention to the need to plan how to

do the project; she also monitored whether they had any difficulty while doing the project (see Table 3.1: Psychological Preparation). The time constraints also affected other activities, e.g. the students who kept their diaries regularly in the first half of the semester were not able to keep the diaries in the second half of the semester.

- The author was not able to conduct Stage 1 of the follow-up study because she came back to Britain; she had to ask a colleague to interview the students for her by sending the questions and the rationale behind each question so that the colleague would know how much she should ask the students. Although the colleague tried to obtain as much information as possible, there were some areas that should have been probed more, e.g. how the teachers judged whether the subjects employed metacognitive strategies to do the English tasks (see 5.6.1.).
- Since the study was conducted in the normal classroom but every lesson was video recorded, it might have been influenced by the Hawthorne Effect, which might have been affected the results of the research. The Hawthorne Effect is the situation where the subjects are aware of participating in an experiment, are aware of the hypothesis or are receiving special attention. Therefore, they tend to improve performance. The Hawthorne Effect can be reduced when the experiment continues long enough (Borg and Gall, 1989: 189-191). The author tried to reduce the Hawthorne Effect by explaining to the students that every class was taken in turn to be video recorded and not mentioning that they were participating in an experiment. In the first few classes the students seemed to be aware of the video camera situated at the back of the class but as the lessons progressed, they performed naturally.
- Because the data collection process was carried out after the RLTP finished, the author was not able to collect data from all of the original subjects. In

Stage 1 of the follow-up study, some of the students did not take the elective courses, therefore the data were obtained from 47 students or 80% of the original samples. Stage 2 of the follow-up study was conducted when the students were studying in their second year in the university. Some had dropped out of the university and some did not show up for the interviews. Therefore, the author was able to obtain the data from only 48 students or 81% of the original samples.

 Because of the limitation of the timescale of the doctoral study, the author was able to conduct the learner training programme only in one course, i.e. four months. This short period of time might limit the degree of change in the students.

6.4. Directions for Further Research and Recommendations for Developments in Teaching and Learning

This section discusses directions for further research and recommendations for further developments in teaching and learning based on the findings from this case study research.

6.4.1. Directions for Further Research

This research study set out to investigate the students' development of learner autonomy through the use of the RLTP; and the findings suggest that the students had become more effective learners through greater self-directedness in their learning. However, because of the time constraints of doctoral study, the author was not able to investigate all aspects of learner autonomy.

Further explanation of the development of learner autonomy would benefit by a more direct comparison between students who are trained in the process of learner autonomy and those who are not. The comparison of the students' learning behaviour and/or achievement of the two groups of students will give more confidence in explaining the benefits of developing learner autonomy. Most of the research related to developing learner autonomy has focused on the process the students being studied have been through; therefore, it is able to only explain their behaviour.

In order to see whether the learner training programme is effective or not requires an investigation into whether psychological and methodological preparation works. The improvement of methodology which indicates that the students are more self-directed can be measured by looking at the students' employing effective learning strategies and the awareness of their use of these strategies. If there had been more time, the author would have conducted the learner training programme over a longer period. The longer period of time would help to see the effect of psychological preparation in relation to the change in students' attitudes and beliefs which affect the development of learner autonomy. The comparison between students' attitudes and beliefs before, throughout and after they are exposed to the learner training programme would help to explain how they change their attitudes and beliefs and what factors are involved in affecting the change. The work by Benson and Lor (1999), Cotterall (1999), and White (1999) would be helpful to gain more insight into the concept of learners' beliefs about language learning.

Although the context of this research study was English language learning, the author focused more on how students learnt rather than their language acquisition or language attainment because she believed that helping the students learn how to learn is fundamental to success in learning. Thus, this research study did not have evidence on the students' language improvement. The largest scale research on autonomy and language acquisition is probably that conducted by Dam and Garbrielsen (see Chapter 2: Research on Language Acquisition in an Autonomous Learning Environment) which was conducted with English language beginners. Thus, it would be beneficial to the language learning area if there is more research conducted in order to examine the relationship between developing learner autonomy and language acquisition and/or attainment.

6.4.2. Recommendations for Development in Teaching and Learning

The discussion of the recommendations for development in teaching and learning which arose from the findings of this research study covers the teacher's role and the learning environment. Since the focus of the research study was on learning in general, the recommendations are not specific to English language learning.

Teacher's Role

The findings from this research study indicates the importance of the role of the teacher in the process of helping the students to develop learner autonomy. The findings concerning the need of the students for the teacher's reassurance in the learning environment, which was new to them, indicated the necessity of having the teacher to help the students move from the traditional learning environment to a more autonomous one. The evidence concerning the students' performing autonomously in an engineering course where the teachers encouraged them to be autonomous suggests that the teacher who wants to promote learner autonomy should provide learning tasks which encourage the students to be self-directed in the learning process. However, the teacher should withdraw his/her expertise from the learning process gradually once the students are able to proceed and become more autonomous.

A close relationship between the teacher and the students appears to develop in a situation where the teacher is regarded as a counsellor as well as a resource because it enables the students to consult and/or talk to the teacher. When the students encounter a new experience and they are not ready for such an experience, providing support is important to help the students to learn successfully and develop positive attitudes towards their experience.

Learning Environment

Working in groups, having discussions in class and making decisions in learning helped to promote greater learner autonomy and this was clearly understood by the students (see Table 5.13). This learning environment also led the students to adopt a deep approach in learning. Therefore, the author recommends the teacher should create a classroom environment by including these aspects in their teaching. Although the self-access centre (SAC) was convenient for the students to exercise their autonomy, it does not mean that the teachers in the institute with no SAC have a seriously limited opportunity to promote learner autonomy. The teachers can work with the students in the normal class by modifying the learning tasks, their teaching method and their assessment to be more open and to involve the students more in sharing their decisions about these aspects.

In an institution which has a SAC, the findings suggest that the centre would work as a support for learner autonomy when the students have a hands-on experience in using it. This can be done by providing the guidelines for the activity which aims at having the students do their self-study in the SAC and encouraging the students to use it as a resource both for their learning and for the important task such as a project. The integration of the use of the SAC in many activities would possibly familiarise the students with the SAC and encourage them to use it more.

6.5. Recommendations for Developing Learner Autonomy at KMUTT

Like all educational research which aims at development, both in the institution where the research was conducted and in other institutions, this research study aimed at developing learner autonomy at KMUTT. In this section, the author will discuss the implications from this research study for developing learner autonomy at KMUTT. The discussion will cover how to deal with the teachers and the students.

The author would suggest training the teachers to use the RLTP, which is the revised version of the original learner training programme, by presenting the theory and practice in a form of seminar and workshop. While the teachers try the RLTP, there should be a meeting at least twice a semester in order to report the problems and/or the

process. Then the RLTP will be used with more groups of students and there will be more feedback to develop it.

Although many teachers in the Department of Languages have been exposed to the concept of learner autonomy, the results of the research by Watson Todd revealed that the language they used in instructions reflected the contradiction of teachers' antiautonomously forcing the students towards learner autonomy (see 3.2.2.). Work on teacher talk should also be included in the seminar and workshop for the teachers. The language of consultation should be discussed with reference to how it might affect the development of learner autonomy.

Developing learner autonomy will be more effective if it can be conducted continuously in every course. Therefore, the author thinks that getting co-operation from the teachers from other courses is necessary. At the beginning, promoting learner autonomy can be done by talking with the teachers in one engineering department and ask them to set some tasks which require the students to do the task independently and present it explicitly as independent learning. The students have to work out the details of how to complete the task. They will be more aware of the process of how to complete the task; they are trained explicitly to be self-directed learners in Engineering.

Programme developments such as the RLTP will be of direct use to develop teaching and learning. So far the Department of Applied Linguistics in the School of Liberal Arts has been involved in this matter through offering an MA programme which aims at encouraging the MA participants to be teachers/researchers. Since the faculty environment promotes conducting research, the author would suggest the language teachers do more research which is considered pedagogically valuable such as the research on student learning, the effect of teaching on student learning, etc.

The author thinks that it will be useful to follow the students' development of learner autonomy until they graduate from the university. This can be done by asking

the students who are exposed to the RLTP in the future if they agree to fill in one brief piece of research documentation for every semester. The students will be asked to fill in the questionnaire covering the period from the second semester when they finish the RLTP until they graduate. The questionnaire will contain questions asking about their self-directed behaviour, teacher-dependency, and how they move towards autonomy in engineering studies. This information will be able to explain factors that affect the students' development of autonomy and support any change to be made to the programme discussed earlier in this section.

6.6. Conclusions

It is hoped that the results from this case study research can give an insight into an attempt to develop learner autonomy by using the revised version of the learner training programme. Although the results of the research directly benefit the context where the author has taught, the author hopes that the findings can give more understanding about developing learner autonomy in any limited context. Knowing about contributory factors that might affect the development of learner autonomy and how to facilitate this process might give ideas to any teacher who wants to try to integrate this concept into his/her normal class. The author hopes that this research study will be an example of an attempt to integrate learner autonomy into a course with a predetermined syllabus, because this situation is common in many educational institutions. In addition to being able to investigate the effectiveness of the RLTP, which can be regarded as a professional gain, this research study helped the author to develop herself as a teacher/researcher through the process of reflecting on her teaching, analysing and criticising the context which she was so familiar with that it was rather difficult to step back and look at it objectively. The author also hopes that the results from this research study will be beneficial for the Department of Languages in developing the current learning training programme.

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Appendix A The RLTP

Appendix A contains the documents related to the RLTP:

- 1. Six units of LNG 101
- 2. Documents used to support the delivering of the RLTP (excluding those employed as the research instruments which are presented in Appendix B)
- A proforma asking the students' opinions about learning English
- Self-study worksheet
- Worksheet to help the students work systematically with the project
- Worksheet describing the process of completing the project

Appendix B

Research Methodology

Appendix B contains examples of research instruments:

- Pre/post questionnaire
- Questionnaire asking about students' experience of learner autonomy
- Learning plans which include the first learning plan and the revised learning plan
- A checklist of strategies the students used to handle language tasks: listening, speaking and writing strategies
- Worksheets on planning, monitoring and evaluating
- Outside class activities record sheet
- A proforma asking about advantages and disadvantages of independent study
- Classroom observation sheet
- Approaches and Study Skills Inventory for Students (ASSIST), both English and Thai versions
- LNG 102 record sheet

Name..... Dept.....

You have learned English for at least five years before coming to the university. The following questions ask for your opinions about studying English and about your own experiences in studying English. There are no right or wrong answers, just answer as accurately as possible.

Section I Attitudes

Use the scale below to answer the questions. If you strongly agree with the statement, circle 6; if you strongly disagree with the statement, circle 1. If you more or less agree with the statement, find the number between 1 and 6 that best describes your opinion.

6				. 2		1 strongly disagree					
strongly agree	agree	slightly disagree	slightly agre	ee	disag	ree	strongly	/ disagr	ee		
1.Learning Eng teacher.	lish can be o	lone without help	o from the	6	5	4	3	2	1		
2. The best thing to a class.	g to do when	ı learning Englisl	n is to go	6	5	4	3	2	1		
3.I don't like to know where to		y own because I	don't	6	5	4	3	2	1		
4.Students shou see if they have		their learning pro	ogress to	6	5	4	3	2	1		
5.Students shou learning.	ld have ider	ntifiable purposes	in	6	5	4	3	2	1		
		by themselves be bach to learning.	ecause	6	5	4	3	2	1		
	ey should a	lems about under sk the teacher or explain.		6	5	4	3	2	1		
8.Students shou English by then	97.0	d opportunities to	practise	6	5	4	3	2	1		

9. The teacher should tell students what their difficulties are.	6	5	4	3	2	1
10. The teacher should tell students how long they should spend on an activity.	6	5	4	3	2	1
11. The teacher should explain why students are doing an activity.	6	5	4	3	2	1
12. The teacher should tell students what to do.	6	5	4	3	2	1
13.The teacher should tell students how they are progressing.	6	5	4	3	2	1
14.If I had the right materials, I'd prefer to spend some time studying alone.	6	5	4	3	2	1
15.If I study in appropriate ways, then I will be able to learn English successfully.	6	5	4	3	2	1
16.If I do well in this course, it will be because I try hard.	6	5	4	3	2	1
17.If I don't do well in this course, it will be because I don't have much ability for learning English.	6	5	4	3	2	1
18.If I don't do well in this course, it will be because the course is too difficult.	6	5	4	3	2	1
19.If I learn a lot in this course, it will be because of the teacher.	6	5	4	3	2	1
20.I like to Study English because it is interesting.	6	5	4	3	2	1
21.It is enjoyable to do tasks in English.	6	5	4	3	2	1
22.Learning English is a challenge that I enjoy.	6	5	4	3	2	1
23.Learning English is a hobby for me.	6	5	4	3	2	1
24.I have to study hard to pass this course because it is important for my grade point average.	6	5	4	3	2	1

25.Learning English helps me to broaden my views.	6	5	4	3	2	1
26.I learn English because I want to spend a period of time in an English-speaking country.	6	5	4	3	2	1
27.I learn English because it is useful when travelling to other countries.	6	5	4	3	2	1
28.I learn English because I want to study abroad.	6	5	4	3	2	1
29.I learn English because I need to be able to read English textbooks	6	5	4	3	2	1
30.If I learn English well, I will be able to get a better job.	6	5	4	3	2	1
31.Knowing English allows me to enjoy entertainment more.	6	5	4	3	2	1

Section II Behaviour

4	3	2	1			
frequent	y often	sometimes	neve	er		
32. When I k see my teach		in studying, I first go to	4	3	2	1
33.I have my	own way of testing	how much I have learned	1. 4	3	2	1
34.I know w	nat my weaknesses ir	n studying are.	4	3	2	1
35.I try to in	prove my weaknesse	4	3	2	1	
36.I want tea	cher's feedback on m	ny learning regularly.	4	3	2	1
	d out the objectives of do to reach them.	of each exercise so that I	4	3	2	1
38.I often th	nk about how I can le	earn English better.	4	3	2	1
39.I learn Er	glish by communicat	ing with native speakers.	. 4	3	2	1
40.I learn Er	glish by reading Eng	lish newspaper.	4	3	2	1

41.I learn English by watching English soundtrack movies.	4	3	2	1
42.I take an English class if I want to improve my English.	4	3	2	1
43.I know how to study English well.	4	3	2	1
44.I can study English without a teacher's help.	4	3	2	1
45.If I am left to do things on my own, I worry whether I am doing the right thing.	4	3	2	1
46.I am aware of which thinking technique or strategy to use and when to use it.	4	3	2	1
47.I plan what to do to finish my assignment.	4	3	2	1
48.I make sure I understand what has to be done and how to do it before I start working on my assignment.	4	3	2	1
49.I keep track of my progress and, if necessary, I change my techniques or strategies.	4	3	2	1
50.I check my work while I am doing it to see if I am on the right track or not.	4	3	2	1
51.I try to correct any mistake arising from the work I'm doing.	4	3	2	1
52.I am aware of my ongoing thinking process.	4	3	2	1
53.If I get bad feedback for my assignment, I analyse my weaknesses so that I can improve it next time.	4	3	2	1
54.I always analyse my weaknesses in learning.	4	3	2	1

Questionnaire Asking about Students' Experience of Learner Autonomy

Name..... Dept.....

This questionnaire was constructed in order to find out about the students' experience in learning English in secondary school. Please $\sqrt{}$ on the box provided at the end of each statement.

	often	Sometimes	rarely	Never
1. The teachers tried to encourage the students to learn by themselves				
2. The teachers allowed the students to show their opinions about what they wanted to do in the activities.				
3. The teachers listened to the students' opinions before making decisions on the content of the activities.				
4. The teachers let the students self-correct their written work.				
5. The teachers had the students do a project which involved finding information outside class to write the project in English.				
6. The teachers had the students analyse the strategies they used to do the exercises on listening, speaking, reading and writing.				
7. The teachers teach strategies necessary to complete the English exercises.				
8. The teachers had the students analyse objectives of each exercise by themselves.				
9. Your school has an English corner which students can use to improve their English (please $$ in the provided)		Yes		No

Name	•	•			•		•	•	•	•	•	•	•	Ĩ	5	ŝ	ŝ		ŝ	Ì	•	•	•	•
Dept			•	•	•	•	•	•			•	•		•	*	•	•	•	•			•	•••	

My Learning Plan for LNG 101

1. My learning objectives for this course are

2. What I will do to reach such objectives and

2. What I will do to reach such objectives are:

Activities

time allocated

 ••••••
 ••••••
 •••••••••••••••••••••••••••••••••••••••

3. Materials I need in order to do these activities are:

4. I can find these materials in.
5. These are the criteria that tell me if I have reached the objectives

that I set

Revised Learning Plan for LNG 101

1. After reviewing my learning plan that I wrote, I think I have problems trying to follow the plan:

2 Mar looming objections of the nexticed plan and

2. My learning objectives of the revised plan are:

.....

3. What I will do to reach such objectives are:

Activities

time allocated

 •••••••••••••••••••••••••••••••••••••••
 •••••••••••••••••••••••••••••••••••••••
 ••••••

4. Materials I need in order to do these activities are:

5. I can find these materials in.
6. These are the criteria that tell me if I have reached the objectives that I set:

.....

LISTENING STRATEGIES

Which strategies have you used when engaging in the listening tasks? Please put a $\sqrt{}$ in front of the statements describing the strategies you use. If you use other strategies, please describe them in the space provided.

Planning

.....I read the questions and the alternatives before listening so that I have a purpose in listening.

.....I try to predict what I am listening to from the instructions, the questions, and the pictures.

......Before listening, I read the title and the instructions. Then I think about the words that may be heard in order to prepare myself for the listening task.

......To get background knowledge, I use other sources to help (e.g. when listening to news, I read the Thai newspaper before listening).

While-listening Stage

..... I take notes while listening.

..... I try to understand every word.

.....I listen to only key words that help me to answer the questions.

......I listen to the text as many times as I can to understand the context thoroughly before answering the questions.

.....I do the task while I listen so that I won't forget the content of the text.

.....I wait until I finish listening to the whole text and then I do the task.

.....I don't pay attention to the speaker's intonation to see if the sentences I am listening to are statements or questions.

.....I pay attention to the tone of the speaker in order to understand his feeling.

......I look for discourse markers such as *because, furthermore,* etc. to understand the organisation of the text.

.....I use my background knowledge to help me understand the content of the text.

Dealing with Vocabulary

......After the first listening when I find out that I don't know some words, I try to find their meaning before doing the second listening.

.....I try to guess the meaning of new words from the context.

.....I try to write down what I hear but do not totally understand and keep repeating this to myself until I begin to figure out what it might mean.

.....I write down only the key words which I don't know, then find out their meaning before doing the second listening.

.....I don't look for key words but try to figure out what I am listening to from the words I understand.

Evaluation

.....I check if I have completed the task correctly by listening to the whole text and checking the answers.

......When checking, I try not to change what I did earlier.

......If the task is filling in the blanks, I check the answers by looking at spelling and grammatical correctness.

.....I do not check the task before submitting it.

Other strategies that I use to understand the listening tasks are:

(Please list below)

SPEAKING STRATEGIES

Which strategies have you used when speaking English? Please put a \checkmark in front of the statements describing your speaking strategies. If you use other strategies, please describe them in the space provided.

While Speaking

.....I thought in Thai and then translated into English.

.....I thought in English while speaking.

.....I spoke clearly and loudly.

.....I used simple words and sentences.

.....If the listener didn't understand, I kept repeating the same word.

.....I stopped talking when the listener didn't understand.

.....I used gestures to help the listener understand my speaking better.

.....I turn to a friend for help as soon as I knew the listener didn't understand me.

.....I rephrased the sentence when I noticed that the listener didn't understand me.

.....I listened to the person I spoke to carefully trying to catch the words which meant the same as what I wanted to say. Then try using those words.

.....I copied useful phrases that can help me communicate such as *do you mind...., May I...etc.*

.....I tried using expressions or idioms that I learned from movies.

.....I asked English speakers to correct my English when I talked to them.

.....I used fillers such as well..., you know..., etc. to give my time to think.

.....I forced myself to be more confident when I spoke English.

Dealing with Vocabulary

.....If I didn't know the exact vocabulary, I tried to use vocabulary I have known to express myself.

.....I changed my stress patterns when the listener didn't understand me.

.....I spelled the word when the listener didn't understand me.

Dealing with Stressing

.....I was careful about my pronunciation when speaking English.

......I didn't pay much attention to my pronunciation when speaking.

.....I asked a person who knows English better than me to pronounce new words for me.

.....I try to imitate the way native speakers talk.

.....I practise pronouncing difficult words in order to pronounce them correctly.

Monitoring

.....I monitored my speaking and changed the sentence immediately when I knew I was making a mistake.

.....I thought of grammatical correctness when speaking.

.....I asked the listener immediately when I was not sure of what I was saying.

Other strategies that I used when speaking

WRITING STRATEGIES

Which strategies have you used when engaging in this writing task? Please put a
 ✓ in front of the statements describing your writing strategies. If you use other strategies, please describe them in the space provided.

Planning Stage

.....I read the instructions carefully before writing so that I was able to choose the writing style suitable for the task.

.....I made a rough draft in my mind before starting to write.

.....I made an outline of what to write first.

.....I asked a teacher to check my outline before starting to write.

......When planning how to write, I wrote down the ideas in Thai and then listed vocabulary that I would use.

Writing Stage

.....I wrote down everything that came into my mind.

..........When writing, if the task was similar to the INPUT, I just copied the INPUT and changed some words.

.....I tried using new sentences I remembered from reading or films.

.....I thought in Thai and then translated the idea into English.

.....I thought in English when writing.

.....I copied sentences relevant to the topic I was writing then connect them together.

.....I used discourse markers such as because, therefore, etc. to link the ideas.

.........While writing, I paid attention to content rather than grammatical correctness.

.....I used my coursebook to provide sentence patterns.

.....I used my coursebook to give me ideas about the content of my writing.

.....I wrote more than one draft before submitting the work.

Dealing with Vocabulary

...........When I got stuck with vocabulary, I asked either a friend or a teacher to help.I looked up words in a Thai-English dictionary when I didn't know vocabulary.If I didn't know the exact vocabulary, I tried to explain my idea by using other vocabulary.

.....I checked how a word is used in an English dictionary so that I was able to use the word correctly.

Checking

.....I checked spellings at the end of my writing.

.....I checked grammatical mistakes when I finished writing.

.....I checked organisation of the text when I finished writing.

.....I had a friend to check my writing for grammatical corrections because I was not able to see my own mistakes.

.....I had a friend to check my writing for relevant content.

.....I used my coursebook to check if grammatical constructions were correct.

.....I used a grammar reference book to check my grammatical construction.

.....I knew the sentences I constructed did not sound English but I didn't know how to correct them.

Revising Stage

.....I read aloud my writing when revising so that I knew if it sounded correct or not.I did not revise my writing.

......When revising, I changed words that I used too frequently.

Other techniques that I used to complete a writing task

.....

PLANNING

When you see this task, what do you think? Please explain your thought either in Thai or in English by answering the following questions.

1.	Can you perform this task?
2.	How much time do you need to complete the task?
3.	Have you ever done a task like this before?
	Which part of the task will be easier and why?
	-
5.	Which part will be the most difficult and why?
	Which will be the most efficient strategies for completing the task?
7.	Do you need any help or other extra knowledge in order to do this task?
8.	How will you get it?

MONITORING

While doing the task, try to answer the following questions.

Do you understand what you are doing?......
 If not, which part don't you understand? Why?......

.....

3. If you don't understand the task, can you use the knowledge you have to understand it? How?

..... 4. Do you have enough knowledge to do this task?..... 5. When you have a problem, how do you solve it?..... 6. Do you spend time as planned to do the task?..... 7. Do you have to change the strategies that you chose in the planning stage when you are actually engaged in the task? Please explain in details.....

EVALUATING

Answer the following questions after you finish the task. 1. What is the objective of this task?..... _____ 2. Do you think you have reached such objective after completing the task?..... 3. Can you apply the knowledge you have to complete this task?..... 4. How much knowledge you have learned in this Unit help you to complete the task (answer in percentage)?..... 5. Do you go over the task again before handing it in?..... 6. Which aspect that you go over?..... 7. What do you change?..... 8. Do you check if you have completed everything as required by the task? How? 9. Are the strategies that you chose to complete this task efficient enough or not? 10. If not, explain why?..... _____

Record Sheet for Outside Class Activities

Date from.....1997

This week, I have participated in the following outside class activities in order to help me improve my English

Activities	time spent	Place
		•••••
		•••••

I have learned something new from doing such activities e.g.:

I chose to do such activities because	
These are the problems I had when I was doing such activities	
I solved these problems by	
(please ask for more record sheet fro	om the teacher)

Observation Sheet

Students
Learner Training Aspect
Steps of teaching
-Was the teacher explain or elicit from the students when she introduced the learner
training activity?
dunning ded vity
-What was the content of the explanation or the elicitation (e.g. objectives of the activity,
how to do it, etc.)
-What were the students' behaviour or reactions at this stage (e.g. attentive, bored, do
other things, etc.) please describe
-Do you think the students understood what the teacher asked them to do? How can you
tell from the video?
-If they didn't understand or follow what the teacher was doing, do you think what
seemed to be the problems?
What are the overall comments that you get from this class? (please include the teacher's
teaching and students' behaviour)
200 D

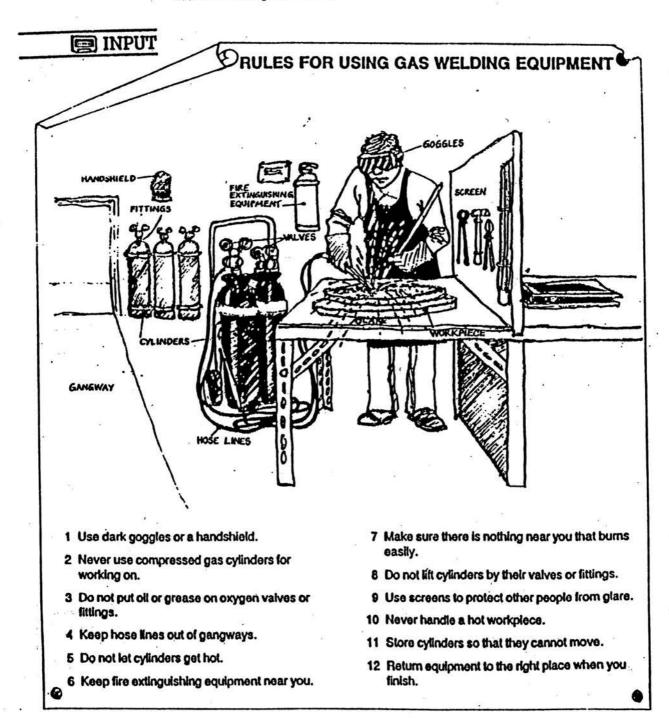
LNG 101

GENERAL ENGLISH FOR SCIENCE AND TECHNOLOGY

UNIT 1 SAFETY

STARTER

Tools can cause injuries (e.g. cuts on your hands) if you don't use them properly. Think about the tools in the last two Sections. What rules can you think of for using them safely?



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STEP 1

In the drawing below, point to the following:

cylinders; valves; fittings; goggles; gangway; handshield; fire extinguishing equipment; screens; hose lines.

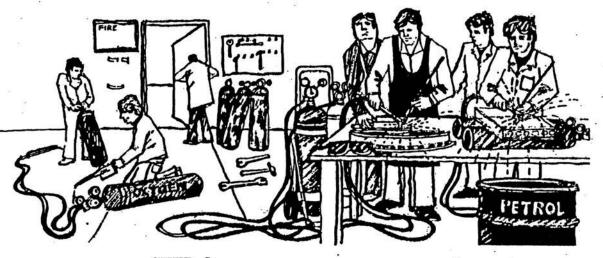
STEP 2

Look at this drawing. It shows gas welding equipment being used INCORRECTLY.

Say what is wrong,

e.g. The man isn't wearing goggles.

b Give the appropriate safety rules.



STEP 3

Find words in the INPUT similar in meaning to the ones in **bold type**. Rewrite the sentences using the new words.

- a Don't put your hands on the workpiece.
- b Keep yourself safe in the workshop by wearing the right clothes.
- c Put tools away in the proper place.
- d Don't allow electrical equipment to get wet.
- e If you don't put tools back after you use them they may get lost.
- f In gas welding you use oxygen and acetylene stored under pressure.

STEP 4

Why do you think the safety rules in the INPUT are necessary? Find rules which match these reasons.

You could damage your eyes.

You could start a fire.

It might cause gas to escape from the cylinder.

The oil could ignite.

The cylinders could get hot.

What are the reasons for the other rules?

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STEP 5 Prepositions

Find these prepositions in the INPUT: on; out of; by; near; to.

Use them to complete this passage.

In gas welding there are certain rules to follow. Don't put the workpiece ______ a surface that will burn. Never move the cylinders ______ their hose lines. Keep equipment ______ gangways. Make sure nothing hot comes ______ the cylinders. Take tools back ______ the store after use.

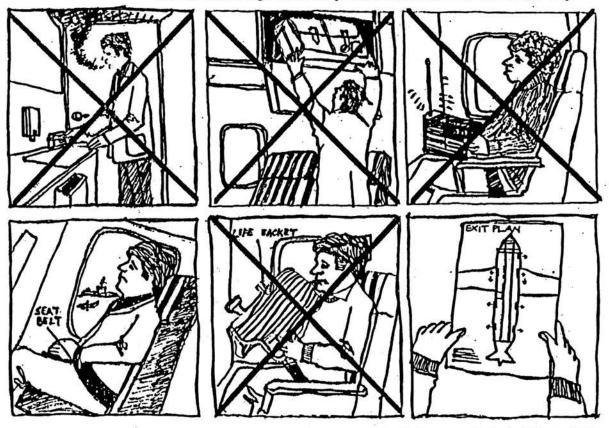
STEP 6 Stating rules

We can state rules, like this:
 Always use goggles or a handshield.
 OR

Never

Do not handle a hot workpiece. Don't

Use these drawings about safety in aircraft to make rules in a similar way.



b Now make similar rules about what to do if a fire starts in the building where you study or work.

STEP 7 Conditionals

 What are the reasons for the aircraft safety rules in Step 6? Match them with the reasons in this list.

-11-

It might be difficult to get out of the exits easily.

The aircraft might not be able to send and receive messages properly. It might start a fire.

You might not get out of the aircraft quickly enough.

It might fall on your head.

You might be thrown out of your seat.

b Write out your rules and the reasons for them, like this:

If you smoke in the toilets, you might start a fire. OR

If you do not know where the exits are, you might not get out of the aircraft quickly enough.

- c Make similar sentences using your answers to Step 4.
- d Think of the reasons for the rules you made about fire safety in 6b. Write out the rules and the reasons as above.

STEP 8 Listening task

TASK

A lot of dangerous materials are used in workshops, e.g. inflammable liquids, like petrol. Make a set of safety instructions for working with inflammable liquids.

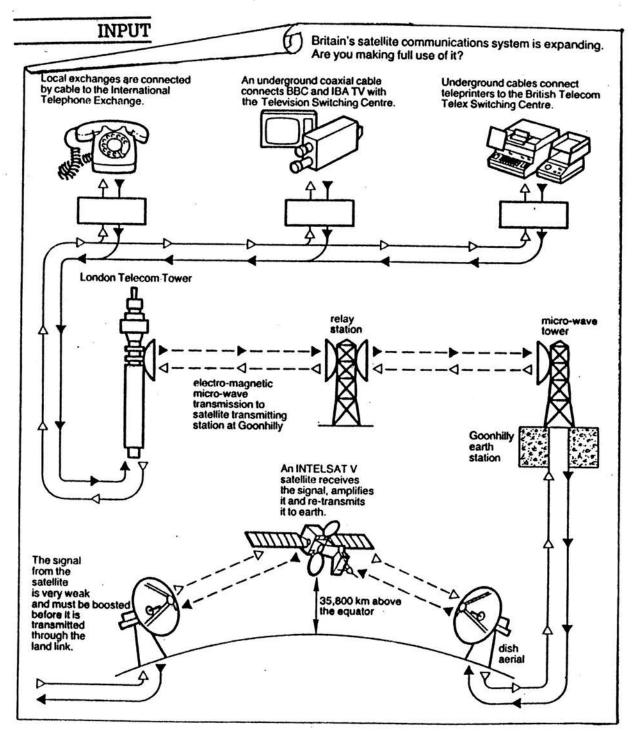
LNG 101

-1-

GENERAL ENGLISH FOR SCIENCE AND TECHNOLOGY

UNIT 2 TELECOMMUNICATIONS

STARTER What forms of telecommunications are there? What are their uses?





STEP 1

Here is a list of stations along the satellite transmission route. Put them in order for a transmission from the UK.

international telephone exchange receiving aerial microwave transmitting tower transmitting aerial relay station satellite microwave receiving tower local telephone exchange

-2-

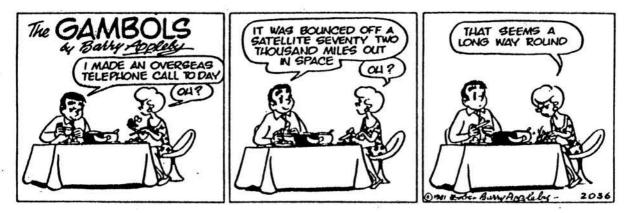
STEP 2

How are the signals transmitted between each two points? e.g. Signals are transmitted by cable from local exchanges to the international telephone exchange.

STEP 3

What does each of the stations do along the transmission route? e.g. The international telephone exchange collects all international calls and

STEP 4

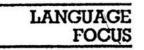


transmits them to the London Telecom Tower.

What are the advantages of satellite communication?

STEP 5

Listening task



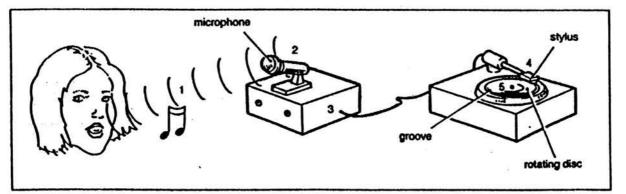
STEP 6 Prepositions

Complete this text with prepositions from the INPUT.

A satellite phone call goes _____ your telephone _____ the local exchange and is sent _____ the international exchange. _____ here it is transmitted _____ cable _____ the Telecom Tower _____ London and then _____ microwave _____ the earth station. The earth aerial beams the signal _____ the satellite, which is positioned 35,800 km _____ the equator.

STEP 7 Describing a sequence 1

Look at this diagram of how a sound recording is made. Order the sentences below to match the numbers on the diagram.



The electric current makes a stylus vibrate.

A microphone picks up the sound waves.

The stylus cuts a groove on a rotating disc.

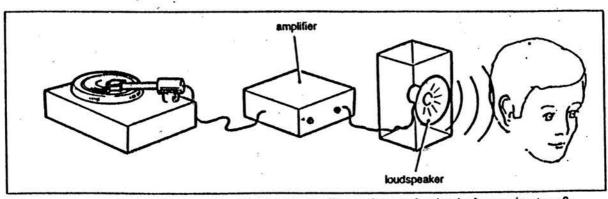
The music produces sound waves.

The microphone turns the sound waves into an electric current.

STEP 8 Describing a sequence 2

Here is a diagram of how sound is reproduced from a record.

- a Copy the diagram.
- b Number the stages in the sequence.
- c Write a sentence to describe each stage.



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Can you describe how recording and reproduction is done using tape?

-3-

STEP 9 Passive forms

-4-

Look at these examples:

ACTIVE: The satellite receives the signal. PASSIVE: The signal is received by the satellite.

Using the passive, describe how a telex message is sent from a teleprinter in America to one in Manchester, England.

e.g. The message is typed into the teleprinter. It is transmitted to the telex switching centre. Continue.

STEP 10 Forming words

Supply the missing words.

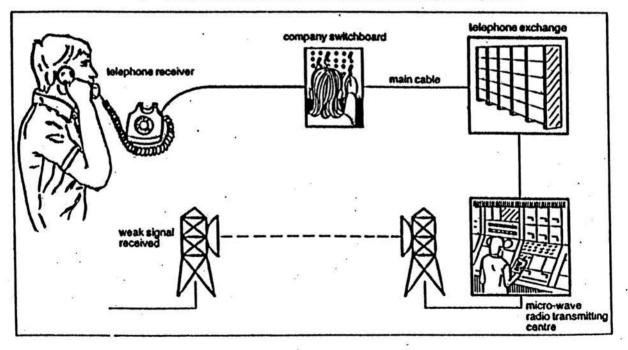
		4
P (1	- 1 C	
.		

verb transmit	NOUN (AGENT) transmitter	NOUN (ACTION) transmission reception
		connection amplification
	reflector	
		compression

TASK

Look at this diagram. It shows how a long-distance business phone call is sent.

- Copy the diagram and complete it. Show how the message is taken to the telephone receiver at the other end.
- b Describe how the message is transmitted through the system.

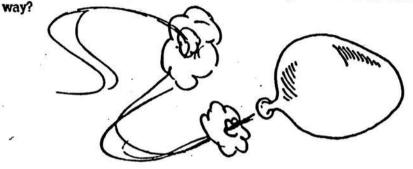


LNG 101

GENERAL ENGLISH FOR SCIENCE AND TECHNOLOGY

UNIT 3 ENGINE TYPES

Why does a balloon fly like this? What kinds of engines work in the same



INPUT

STARTER

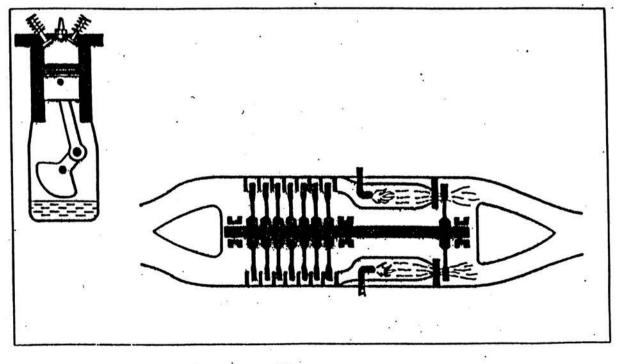
In 1903, the first aeroplane flew. It was powered by a petrol engine. This kind of engine is still used in some aircraft. However, most aeroplanes of today have jet engines. How do these two types of engine differ?

The Petrol Engine

The fuel and air mixture enters the cylinder. The piston rises and it compresses the mixture. The compressed mixture is ignited by the spark. As the combustion gases expand, they push the piston down, and the crankshaft turns. On an aircraft the crankshaft is connected to the propellor. In a car it transmits power to the wheels.

The Jet Engine

The compressor sucks air into the engine, and compresses it. Then the compressed air mixes with the fuel and this mixture is burnt in the combustion chamber. The combustion gases drive the turbine. This drives the compressor. The exhaust gases escape from the engine through the nozzle. This pushes the aircraft forwards.



GATHERING INFORMATION

STEP 1

- Copy the drawings of the engines, and label them with the following words. fuel and air mixture; cylinder; piston; spark; combustion gases; crankshaft; propellor; compressor; combustion chamber; turbine; nozzle; exhaust gases.
- **b** Use arrows to show the movement of air and gases through the jet engine, and to show how the parts move on the petrol engine.

STEP 2

Find words in the INPUT similar in meaning to these expressions:

begin to burn; type; get bigger; be different; joined; supply power to $(\times 2)$; leave; make smaller; pulls into; goes up; sends.

STEP 3

Which engines (jet. petrol, diesel, rocket) can be used in each of these? Give reasons.

car; lorry; aeroplane; spacecraft; ship; motorcycle; train.

🖃 STEP 4 Listening task

LANGUAGE FOCUS

2

STEP 5 Subject-verb agreement

Write these sentences with the correct form of the verb.

- The exhaust gases (ESCAPE) from the engine through the nozzle.
- b The spark (IGNITE) the mixture.
- c The air and the fuel (MIX) together in the combustion chamber.
- d The fuel and air mixture (ENTER) the cylinder.
- e The combustion gases (DRIVE) the turbine.
- f The crankshaft (TURN).
- g The combustion gases (EXPAND).
- h Air (ENTER) the engine.
- i The piston (COMPRESS) the mixture.
- j The air and the fuel (BURN) in the combustion chamber.
- k The compressor (COMPRESS) the air.
- 1 The combustion gases (PUSH) the piston down.
- m The turbine (DRIVE) the compressor.

STEP 6 Describing how something works

In the INPUT, both of the descriptions contain these three stages:

the mixture is burned

-3-

power is produced

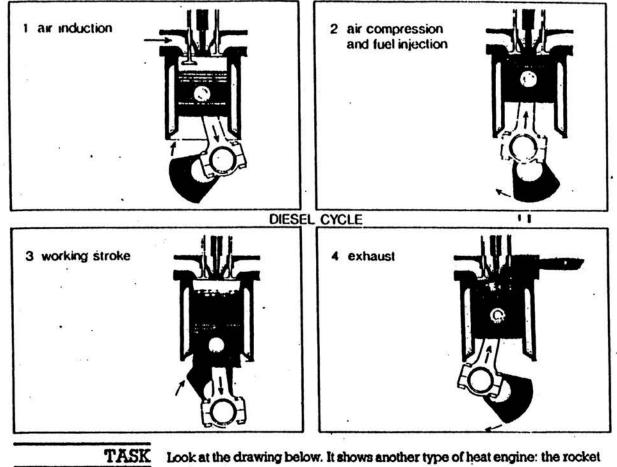
fuel and air mixture enters the combustion chamber

- a Put the stages in the correct order.
- b Look at the description of the petrol engine and find the three stages. Do the same for the description of the jet engine.
- c Could the order of the stages be changed?
- d Which of these rules should you follow when writing a description of how something works?
 - 1 There should always be three stages in the process.
 - 2 The order of the stages in the process is not important.
 - 3 A.description of a process should follow the order of the process itself.
- e In Step 5, some of the sentences describe the petrol engine, and some of them describe the jet engine. Separate them, and put them in the correct order for describing how each engine works.

STEP 7 Linking

Look at the description of the petrol engine in the INPUT.
 What does it refer to?
 What does they refer to?
 Why is it sometimes used, and sometimes they?

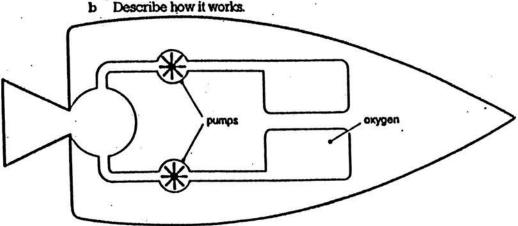
b As the combustion gases expand, they push the piston down.What does the word as tell you about the two actions in this sentence?



The drawings below show the stages in the working of a diesel engine. C Describe them, using it, they and as where appropriate.

engine.

Make a copy of the diagram, label the parts, and put arrows on it to show the movements of the parts.



Describe how it works.

UNIT 4

ROBOTS

STARTER

INPUT

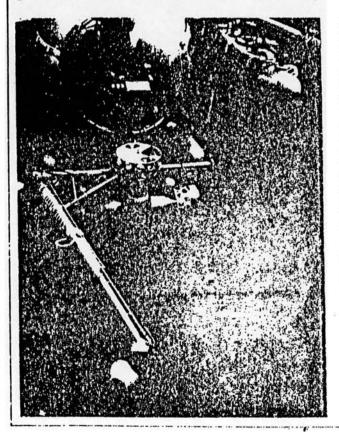
Will robots replace people at work? Some people say they create more jobs, some that they create less. Who do you agree with?

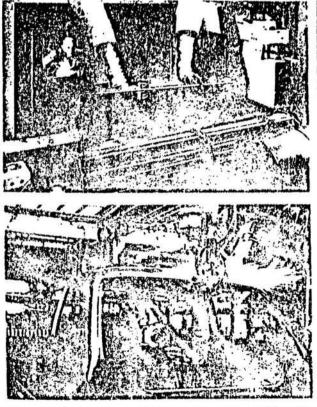
ROBOTS - THE IDEAL WORKERS ?

We hear many complaints about work in factories: the work is often boring, heavy and repetitive; the operative does not have to think about the work; he gets no job satisfaction.

The answer: a robot. For many jobs a robot is much better than a human operative. Once it has been programmed, it will do its job over and over again. It never gets bored; it works at a constant speed; it doesn't make mistakes; its work is always of the same standard; it doesn't get tired; it doesn't go on strike; it can work for 24 hours a day without breaks for food, rest or sleep; it doesn't take holidays or demand higher wages.

Robots have other advantages, too. They can be designed to do almost any job. You can't change the human body, but a robot's arms, for example, can be made to move in any direction. Robots can also do very heavy work and they can operate in conditions that are too dangerous, too hot or too cold for people to work in. They can work under water, in poisonous gas and in radioactive areas. And on top of all this, robots never complain.





GATHERING INFORMATION

STEP 1

Look at the pictures of the robots working. What do you think each one is doing?

-2-

STEP 2

The text talks about the advantages of robots. Make a list of these advantages, and the disadvantages of human beings that are implied.

ADVANTAGES OF ROBOTS	DISADVANTAGES OF HUMANS
e.g. They never get bored.	They get bored
They work at a constant speed.	Their work rate varies.
	x x x x x

STEP 3

a Complete this paragraph with appropriate words from the INPU'I.

Robots are particularly useful for in places where would air, so they can be used in space or die. They don't have also been Special for handling materials. A number of industrial and military are also used to gases. So in many ways robots mean that people do in not have to in jobs. But, of course, are still needed to and repair the robots.

b Find words or expressions in the INPU'I' which mean the same as:

worker to stop work for e.g. higher wages

enjoyment of your work

boring, because it never changes unchanging

STEP 4

Read this text about the advantages human beings have over robots. Make notes of the main points.

It is obvious that robots have many advantages over human beings. However, it is also true that humans can do many things that robots can't. For example, humans can carry out a task without having to be told exactly how to do it first - in other words, they don't always have to be programmed. Humans can walk, run, swim, drive cars, fly aeroplanes, and so on, but robots are usually fixed in one place. If they are able to move, robots can do so only in a very limited way. Another advantage humans have is the way the same person can do jobs as different as making a cup of tea and designing a new type of motor car. And unlike robots, people can know whether what they are doing is good or bad, and whether it is boring or interesting. Also, robots are only just beginning to be able to understand speech and writing, but humans can communicate easily with each other by these methods, and by many others - telephone, drawings, radio, and so on - as well.

And we should not forget that robots owe their existence to humans -- we make them, repair them and control them, not the other way round. Finally, humans can produce new little humans by themselves!

LANGUAGE FOCUS

STEP 5 Negatives

Change these sentences like this:

A robot never gets bored. \rightarrow A robot does not get bored. Robots never get bored. \rightarrow Robots do not get bored.

a Robots never complain.

b A computer never makes mistakes.

c The human body never changes.

d A robot never eats.

e Some satellites never return to Earth.

f Machines never demand higher wages.

g Some materials never decay.

h A wet bird never flies at night.

STEP 6 Contrasts

Use the information you put down in Steps 2 and 4 to compare robots and people, '

e.g. A man needs to rest, but a robot doesn't.

Robots have to be programmed, but people don't. Continue.

STEP.7 Giving reasons

You are planning a factory operated totally by robots. Make a list of the things you *don't* need and say why,

e.g. You don't need a canteen to provide meals, because robots don't eat.

STEP 8 Too/enough

This factory is too dangerous for people to work in.

This means the same as:

This factory is not safe enough for people to work in.

Change these sentences in the same way.

The metal was not cool enough to touch.

b : This material is not soft enough to bend.

c The water was too cold to swim in.

d The job was not interesting enough for me.

e My wages are too low to live on.

I The breaks are not long enough to get a good rest.

STEP 9 Comparing abilities

Look at this comparison:

A man can think about his work, but a robot can't.

Make sentences from these cues. The cues are not all in the right order.

- a Rocket/travel in space/jet engine
- b Machine/become ill/man

c Re-use/tape/record

- d Jet aircraft/fly at very high altitudes/propellor-driven aircraft
- e Human beings/work without air/robots

0-0

STEP 10 Listening task

Look at these lists. Listen and match the robot names with the jobs.

Lunokhod	handle dangerous materials
Consub 1	
Mobot	welding
Unimate	explore other planets
Angus	explore other planets
CAMS Hardiman 1	lift heavy objects
Viking	
Rivet	explore underwater

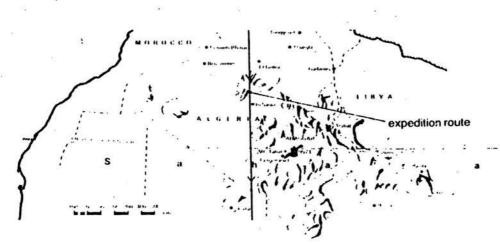
TASK

You are going on an expedition across the Sahara desert. You can take either a car or a camel.

a Work out the advantages and disadvantages of each. Make a list like this:

·	CAR		· .	CAMEL
advantages	disadvantages		advantages .	disadvantages
5	2	•	1	
				4
5) 				s

b. Make your decision



· · · · · ·

UNIT 5

STEEL

STARTER

Metals have different properties, which make them suitable for different jobs. What properties do you think these common metals have: copper, cast iron, lead, aluminium, steel?



GATHERING INFORMATION

STEP 1

Make a chart like this. Fill it in using the information from the experiment.

Aim of the experiment: Type of steel

Blows to bend to 90° before heating: after heating:

low carbon

high oarbon

Effect noted:

STEP 2

There are several names given for each of the two pieces of steel. Write them down in two lists.

STEP 3

a In the INPUT pictures point to the following:

hammer; furnace; vice; quenching oil; low carbon steel; high carbon steel.

b Find words in the INPUT which mean the same as:

easily broken; it won't bend to break to make something hot to make something cooler hit reflecting light the same; standard about

STEP 4

Can you answer the teacher's final question? Why did the silver steel break, when the mild steel showed no change?



STEP 5 Listening task

Listen to the cassette and say whether the following statements are true or false. Correct any that are false.

- a Metals are easy to distinguish from non-metals.
- b Magnesium burns easily.
- c All metals have the same properties.
- d All metals are shiny.
- e Most metals react with oxygen.

f Silicon is a hard metal.

- g Sodium, calcium, potassium and magnesium are all metals.
- h There are more non-metals than metals.

LANGUAGE FOCUS

STEP 6 Quantities

Note the plural: a piece of steel a bar of steel

two pieces of steel four bars of steel

Make the plurals of these:

a tin of paint a box of tools a piece of plastic a pound of copper a skip of iron ore a set of numbers a column of digits

a block of steel

a layer of nickel

STEP 7 Reporting

Instructions for tempering a steel chisel

- 1 Take a steel chisel.
- 2 Hold the chisel firmly in a pair of tongs.
- 3 Place the chisel in a furnace.
- 4 Heat it to 850 degrees Centigrade.
- 5 Take it out of the furnace.
- 6 Quench it in tepid water.
- 7 Clean the tool with emery cloth.
- 8 Gently re-heat it over a bunsen burner.
- 9 When the metal reaches the required temperature, quench it again.

Now turn these instructions into a report, like this:

First we took a steel chisel. We ...

STEP 8 Report writing 1

We want to make a report on the experiment in the INPUT. The tense we use is the past tense. In the following report, put the verbs into the correct tense and use the information from your chart to complete the report.

The experiment (#:) to show on steels with different contents. The teacher (TAKI:) two pieces of steel, one with

and the other with ... He (PUT) them in a and. using He (PLACE) them in the bars to and (QUENCII) them in vice again and (HIT) them with the hammer to try to bend the other ends. The (BREAK) again (TAKE) blows to bend it, but the with just . We noted, then, that and (MAKE) the silver steel very , but that the (show) no change. We (CONCLUDE) that this effect was due to the difference in content of the two steels.

STEP 9 Report writing 2

Here is a useful framework for a report on an experiment.

AIM

APPARATUS

PROCEDURE

EFFECT OR RESULT

CONCLUSION

In the report above, find each of these stages.

STEP 10 Report writing 3

Note these expressions. They are often used in report writing:

Our conclusion was that We observed that

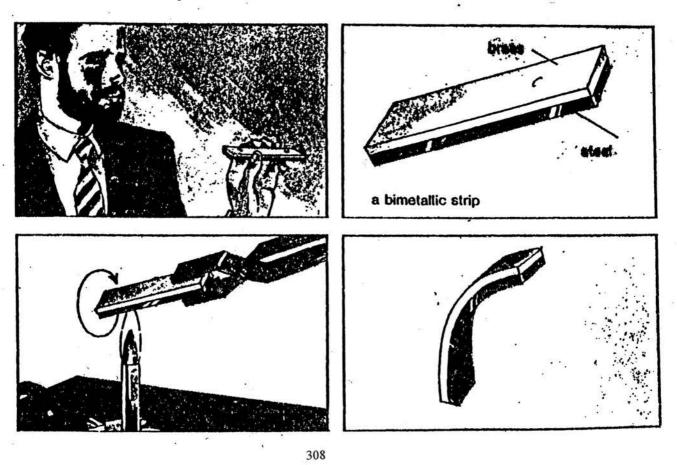
The aim of the experiment was to

this effect was caused by this effect was the result of

Substitute these expressions for the ones used in the report.

TASK

Look at these pictures. They show the steps in an experiment. First of all, decide what the experiment is showing. Then write a report on it, using the pattern above.



-4-



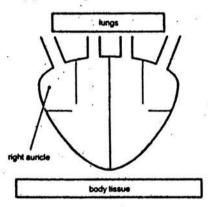
GATHERING INFORMATION STEP 1

Connect the two halves of the sentences to make true statements.

The heart	pumps blood to the lungs.
The veins	carry blood from the heart to the body tissue.
The auricles	is a kind of pump.
The right ventricle	carry blood to the heart.
The lungs	is pumped from the lungs back to the heart.
The fresh blood	pump blood into the ventricles.
The left side of the heart	supply the blood with oxygen.
The arteries	pumps the fresh blood into the arteries.

STEP 2

Copy this diagram of the heart and blood system.



- a On your diagram label the auricles and ventricles.
- **b** Extend the blood vessels at the top of the heart to make a complete circulation diagram through the lungs and the body tissues.
- c Put in arrows to show the flow of blood through the system.

STEP 3

Use these expressions to replace those of similar meaning in the INPUT. drawn; next to each other; increase; enter; get smaller; return; collect; exit; blood vessel (2).

0-10

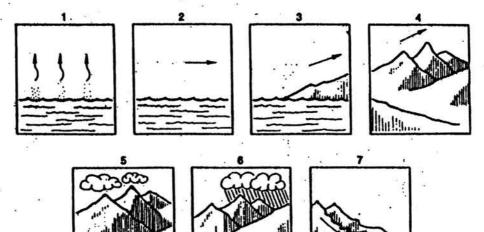
STEP 4 Listening task

STEP 5 Describing a system 1

LANGUAGE

FOCUS

Look at this description of how relief rainfall occurs.



- 1. Water vapour from the sea rises.
- 2 The wind picks up the water vapour.
- 3 The wind carries the water vapour towards the mountains.
- 4 The mountains push the wet air upwards.
- 5 The temperature is lower up the mountains. The water vapour condenses into cloud.
- 6 The condensed water falls as rain.
- 7 The rain water runs down through rivers and streams to the sea.

This description is very simple. It follows the diagram in numbered stages, explaining what happens at each stage.

Make a similar description for the heart and blood system. On your diagram number the stages first, then write a sentence to explain each stage. Begin like this.

1 Old blood goes into the right auricle.

2 The blood is sucked into the right ventricle. Continue.

STEP 6 Linking clauses

The description of relief rainfall is very simple, but there is a lot of repetition
 in it. We can make it much shorter like this.

Water vapour from the sea rises. The wind picks it up and carries it towards the mountains, which push the wet air upwards, where the temperature is lower. The water vapour condenses into clouds and falls as rain, which runs down through rivers and streams to the sea.

What changes have been made to shorten the description?

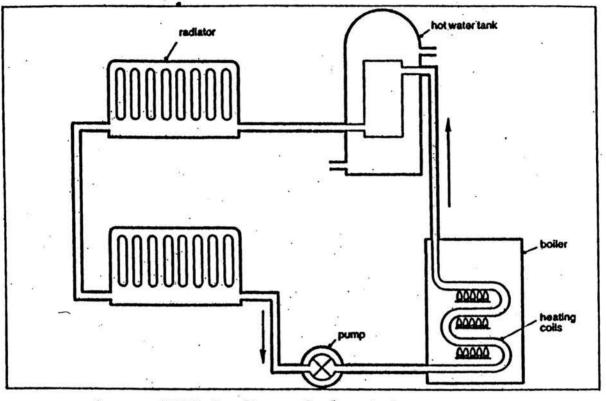
b Make your description of the blood system shorter in the same way.

STEP 7 Describing a system 2

-4-

This diagram shows the flow of water through a domestic central heating and hot water system.

Study the diagram and then describe the flow of water through the system.



STEP 8 Tenses in descriptions

Note the difference between these two descriptions:

"We're going into the right auricle." The old blood goes into the right auricle.

The one blood good and the right address.

Why are different tenses used in the different situations?

Describe the relief rainfall cycle, as if you were a water molecule. Begin like this.

Hello, my name's H_2O , but you can call me H for short. I'm a water molecule and at the moment I'm floating around in the sunny Pacific, but it's very warm and I'm starting to evaporate Continue.

TASK

A tour around your place of study or work.

a Draw a simple plan of the site.

- b Give a general description of what happens at the main places on the site.
 - Take a group of visitors around the site, giving a commentary as you go.

OPINIONS ABOUT ENGLISH LANGUAGE LEARNING

The best ways to learn English (in my opinion) are:

When learning English, I like to do the following things:

When learning English, I don't like to do the following things:

Name	
Dept	

TASK

Self-study in the SALL

Please answer the questions about the task you do for your self-study. 1.Describe the activity you did for your self-study. 2. Why did you want to do this activity? ------..... 3. State your own plan (e.g., find a grammar exercise that I have problem with to work on, etc.)..... 4. How did you evaluate your performance? 5. What did you learn? 6.Explain the strategies you used to complete the task. 7.Did you have any problem when doing this task? 8. How did you solve the problem?

Worksheet to help the students work systematically with the project

Project	Proposal
---------	----------

Title:_____ Group members: References: **Outline (Please explain scope of your work briefly)** 2

Worksheet describing the process of completing the project

Detailed Plan for the Project

1.Title	
2.Group members	
3.Your responsibility	
4. Your plan to accomplish your assigned respon	sibility
activities (what to do)	time allocated
	2
5.Problems arising	
6. How to solve them	

Appendix B

Research Methodology

Appendix B contains examples of research instruments:

- Pre/post questionnaire
- Questionnaire asking about students' experience of learner autonomy
- Learning plans which include the first learning plan and the revised learning plan
- A checklist of strategies the students used to handle language tasks: listening, speaking and writing strategies
- Worksheets on planning, monitoring and evaluating
- Outside class activities record sheet
- A proforma asking about advantages and disadvantages of independent study
- Classroom observation sheet
- Approaches and Study Skills Inventory for Students (ASSIST), both English and Thai versions
- LNG 102 record sheet

Name..... Dept.....

You have learned English for at least five years before coming to the university. The following questions ask for your opinions about studying English and about your own experiences in studying English. There are no right or wrong answers, just answer as accurately as possible.

Section I Attitudes

Use the scale below to answer the questions. If you strongly agree with the statement, circle 6; if you strongly disagree with the statement, circle 1. If you more or less agree with the statement, find the number between 1 and 6 that best describes your opinion.

6 strongly agree	5 agree	4 slightly disagree	3 slightly agre	e	2 disag	ree	strongly	1 disagr	ee
1.Learning Engl teacher.	ish can be	done without helj	p from the	6	5	4	3	2	1
2.The best thing to a class.	to do when	n learning Englisl	h is to go	6	5	4	3	2	1
3.I don't like to know where to s		y own because I	don't	6	5	4	3	2	1
4.Students shoul see if they have		their learning pro s.	ogress to	6	5	4	3	2	1
5.Students shoul learning.	d have ider	ntifiable purposes	s in	6	5	4	3	2	1
6.Students shoul they may use a v		by themselves boach to learning.	ecause	6	5	4	3	2	1
	ey should a	lems about under sk the teacher or explain.		6	5	4	3	2	1
8.Students shoul English by them	and the second sec	d opportunities to	o practise	6	5	4	3	2	1

6	5	4	3	2	1
6	5	4	3	2	1
6	5	4	3	2	1
6	5	4	3	2	1
6	5	4	3	2	1
6	5	4	3	2	1
6	5	4	3	2	1
6	5	4	3	2	1
6	5	4	3	2	1
6	5	4	3	2	1
6	5	4	3	2	1
6	5	4	3	2	1
6	5	4	3	2	1
6	5	4	3	2	1
6	5	4	3	2	1
6	5	4	3	2	1
	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	6 5 6 5	6 5 4 6 5 4 6 5 4 6 5 4 6 5 4 6 5 4 6 5 4 6 5 4 6 5 4 6 5 4 6 5 4 6 5 4 6 5 4 6 5 4 6 5 4 6 5 4 6 5 4 6 5 4 6 5 4	6 5 4 3 6 5 4 3	6 5 4 3 2 6 5 4 3 2 6 5 4 3 2 6 5 4 3 2 6 5 4 3 2 6 5 4 3 2 6 5 4 3 2 6 5 4 3 2 6 5 4 3 2 6 5 4 3 2 6 5 4 3 2 6 5 4 3 2 6 5 4 3 2 6 5 4 3 2 6 5 4 3 2 6 5 4 3 2 6 5 4 3 2 6 5 4 3 2 6 5 4 3 2

25.Learning English helps me to broaden my views.	6	5	4	3	2	1
26.I learn English because I want to spend a period of time in an English-speaking country.	6	5	4	3	2	1
27.I learn English because it is useful when travelling to other countries.	6	5	4	3	2	1
28.I learn English because I want to study abroad.	6	5	4	3	2	1
29.I learn English because I need to be able to read English textbooks	6	5	4	3	2	1
30.If I learn English well, I will be able to get a better job.	6	5	4	3	2	1
31.Knowing English allows me to enjoy entertainment more.	6	5	4	3	2	1

Section II Behaviour

4	3	2	1			
frequently	often	sometimes	never	8		
32. When I know see my teachers.	I have problems i	n studying, I first go to	4	3	2	1
33.I have my own	n way of testing h	ow much I have learned.	4	3	2	1
34.I know what n	ny weaknesses in	studying are.	4	3	2	1
35.I try to improv	e my weaknesses	in studying.	4	3	2	1
36.I want teacher	's feedback on my	y learning regularly.	4	3	2	1
37.I try to find ou know what to do		f each exercise so that I	4	3	2	1
38.I often think a	bout how I can lea	arn English better.	4	3	2	1
39.I learn English	by communication	ng with native speakers.	4	3	2	1
40.I learn English	by reading Engli	sh newspaper.	4	3	2	1

41.I learn English by watching English soundtrack movies.	4	3	2	1
42.I take an English class if I want to improve my English.	4	3	2	1
43.I know how to study English well.	4	3	2	1
44.I can study English without a teacher's help.	4	3	2	1
45.If I am left to do things on my own, I worry whether I am doing the right thing.	4	3	2	1
46.I am aware of which thinking technique or strategy to use and when to use it.	4	3	2	1
47.I plan what to do to finish my assignment.	4	3	2	1
48.I make sure I understand what has to be done and how to do it before I start working on my assignment.	4	3	2	1
49.I keep track of my progress and, if necessary, I change my techniques or strategies.	4	3	2	1
50.I check my work while I am doing it to see if I am on the right track or not.	4	3	2	1
51.I try to correct any mistake arising from the work I'm doing.	4	3	2	1
52.I am aware of my ongoing thinking process.	4	3	2	1
53.If I get bad feedback for my assignment, I analyse my weaknesses so that I can improve it next time.	4	3	2	1
54.I always analyse my weaknesses in learning.	4	3	2	1

Questionnaire Asking about Students' Experience of Learner Autonomy

Name.	 •												•	•	•	•	•	•
Dept	 	•	•	•	•	•		•		•	•					•		•

This questionnaire was constructed in order to find out about the students' experience in learning English in secondary school. Please $\sqrt{}$ on the box provided at the end of each statement.

	often	Sometimes	rarely	Never
1. The teachers tried to encourage the students to learn by themselves				
2. The teachers allowed the students to show their opinions about what they wanted to do in the activities.				
3. The teachers listened to the students' opinions before making decisions on the content of the activities.				
4. The teachers let the students self-correct their written work.				
5. The teachers had the students do a project which involved finding information outside class to write the project in English.				
6. The teachers had the students analyse the strategies they used to do the exercises on listening, speaking, reading and writing.				
7. The teachers teach strategies necessary to complete the English exercises.				
8. The teachers had the students analyse objectives of each exercise by themselves.				
9. Your school has an English corner which students can use to improve their English (please $$ in the provided)		Yes		No

Name.	•	••	•	•		•	•	•	•	•	•	•		•	2		•		•	8		s	•		•	•
Dept	•		•			•	•	•	•	•	•		•	•	•	•	•	•			•			0		

My Learning Plan for LNG 101

1. My learning objectives for this course are

2. What I will do to reach such objectives are:

Activities

time allocated

 •••••••
 •••••••••
 ••••••

3. Materials I need in order to do these activities are:

4. I can find these materials in
5. These are the criteria that tell me if I have reached the objectives

that I set

Revised Learning Plan for LNG 101

1. After reviewing my learning plan that I wrote, I think I have problems trying to follow the plan:

2. My learning objectives of the revised plan are:

3. What I will do to reach such objectives are:

Activities

time allocated

 •••••••••••••••••••••••••••••••••••••••
 •••••

4. Materials I need in order to do these activities are:

5. I can find these materials in.... 6. These are the criteria that tell me if I have reached the objectives that I set:

.....

LISTENING STRATEGIES

Which strategies have you used when engaging in the listening tasks? Please put a $\sqrt{}$ in front of the statements describing the strategies you use. If you use other strategies, please describe them in the space provided.

Planning

.....I read the questions and the alternatives before listening so that I have a purpose in listening.

.....I try to predict what I am listening to from the instructions, the questions, and the pictures.

......Before listening, I read the title and the instructions. Then I think about the words that may be heard in order to prepare myself for the listening task.

......To get background knowledge, I use other sources to help (e.g. when listening to news, I read the Thai newspaper before listening).

While-listening Stage

..... I take notes while listening.

..... I try to understand every word.

.....I listen to only key words that help me to answer the questions.

......I listen to the text as many times as I can to understand the context thoroughly before answering the questions.

.....I do the task while I listen so that I won't forget the content of the text.

.....I wait until I finish listening to the whole text and then I do the task.

......I don't pay attention to the speaker's intonation to see if the sentences I am listening to are statements or questions.

.....I pay attention to the tone of the speaker in order to understand his feeling.

.....I look for discourse markers such as *because, furthermore,* etc. to understand the organisation of the text.

.....I use my background knowledge to help me understand the content of the text.

Dealing with Vocabulary

......After the first listening when I find out that I don't know some words, I try to find their meaning before doing the second listening.

.....I try to guess the meaning of new words from the context.

.....I try to write down what I hear but do not totally understand and keep repeating this to myself until I begin to figure out what it might mean.

.....I write down only the key words which I don't know, then find out their meaning before doing the second listening.

.....I don't look for key words but try to figure out what I am listening to from the words I understand.

Evaluation

.....I check if I have completed the task correctly by listening to the whole text and checking the answers.

.......When checking, I try not to change what I did earlier.

.....If the task is filling in the blanks, I check the answers by looking at spelling and grammatical correctness.

.....I do not check the task before submitting it.

Other strategies that I use to understand the listening tasks are:

(Please list below)

SPEAKING STRATEGIES

Which strategies have you used when speaking English? Please put a \checkmark in front of the statements describing your speaking strategies. If you use other strategies, please describe them in the space provided.

While Speaking

.....I thought in Thai and then translated into English.

.....I thought in English while speaking.

.....I spoke clearly and loudly.

.....I used simple words and sentences.

......If the listener didn't understand, I kept repeating the same word.

.....I stopped talking when the listener didn't understand.

.....I used gestures to help the listener understand my speaking better.

.....I turn to a friend for help as soon as I knew the listener didn't understand me.

.....I rephrased the sentence when I noticed that the listener didn't understand me.

.....I listened to the person I spoke to carefully trying to catch the words which meant the same as what I wanted to say. Then try using those words.

.....I copied useful phrases that can help me communicate such as *do you mind...., May I...etc.*

.....I tried using expressions or idioms that I learned from movies.

.....I asked English speakers to correct my English when I talked to them.

.....I used fillers such as well..., you know..., etc. to give my time to think.

.....I forced myself to be more confident when I spoke English.

Dealing with Vocabulary

......If I didn't know the exact vocabulary, I tried to use vocabulary I have known to express myself.

.....I changed my stress patterns when the listener didn't understand me.

.....I spelled the word when the listener didn't understand me.

Dealing with Stressing

.....I was careful about my pronunciation when speaking English.

......I didn't pay much attention to my pronunciation when speaking.

.....I asked a person who knows English better than me to pronounce new words for me.

.....I try to imitate the way native speakers talk.

.....I practise pronouncing difficult words in order to pronounce them correctly.

Monitoring

.....I monitored my speaking and changed the sentence immediately when I knew I was making a mistake.

.....I thought of grammatical correctness when speaking.

.....I asked the listener immediately when I was not sure of what I was saying.

Other strategies that I used when speaking

WRITING STRATEGIES

Which strategies have you used when engaging in this writing task? Please put a
✓ in front of the statements describing your writing strategies. If you use other strategies, please describe them in the space provided.

Planning Stage

.....I read the instructions carefully before writing so that I was able to choose the writing style suitable for the task.

.....I made a rough draft in my mind before starting to write.

.....I made an outline of what to write first.

.....I asked a teacher to check my outline before starting to write.

...........When planning how to write, I wrote down the ideas in Thai and then listed vocabulary that I would use.

Writing Stage

.....I wrote down everything that came into my mind.

..........When writing, if the task was similar to the INPUT, I just copied the INPUT and changed some words.

.....I tried using new sentences I remembered from reading or films.

.....I thought in Thai and then translated the idea into English.

.....I thought in English when writing.

.....I copied sentences relevant to the topic I was writing then connect them together.

.....I used discourse markers such as because, therefore, etc. to link the ideas.

......While writing, I paid attention to content rather than grammatical correctness.

.....I used my coursebook to provide sentence patterns.

.....I used my coursebook to give me ideas about the content of my writing.

.....I wrote more than one draft before submitting the work.

Dealing with Vocabulary

...........When I got stuck with vocabulary, I asked either a friend or a teacher to help.I looked up words in a Thai-English dictionary when I didn't know vocabulary.If I didn't know the exact vocabulary, I tried to explain my idea by using other vocabulary.

.....I checked how a word is used in an English dictionary so that I was able to use the word correctly.

Checking

.....I checked spellings at the end of my writing.

.....I checked grammatical mistakes when I finished writing.

.....I checked organisation of the text when I finished writing.

.....I had a friend to check my writing for grammatical corrections because I was not able to see my own mistakes.

.....I had a friend to check my writing for relevant content.

......The grammatical aspects that I corrected were subject-verb agreement, tenses and articles.

.....I used my coursebook to check if grammatical constructions were correct.

.....I used a grammar reference book to check my grammatical construction.

.....I knew the sentences I constructed did not sound English but I didn't know how to correct them.

Revising Stage

.....I read aloud my writing when revising so that I knew if it sounded correct or not.I did not revise my writing.

......When revising, I changed words that I used too frequently.

Other techniques that I used to complete a writing task

.....

PLANNING

When you see this task, what do you think? Please explain your thought either in Thai or in English by answering the following questions.

1.	Can you perform this task?
2.	How much time do you need to complete the task?
3.	Have you ever done a task like this before?
	Which part of the task will be easier and why?
	Which part will be the most difficult and why?
	Which will be the most efficient strategies for completing the task?
7.	Do you need any help or other extra knowledge in order to do this task?
8.	How will you get it?

MONITORING

While doing the task, try to answer the following questions. 1. Do you understand what you are doing?..... 2. If not, which part don't you understand? Why?..... 3. If you don't understand the task, can you use the knowledge you have to understand it? How? 4. Do you have enough knowledge to do this task?..... 5. When you have a problem, how do you solve it?..... 6. Do you spend time as planned to do the task?..... 7. Do you have to change the strategies that you chose in the planning stage when you are actually engaged in the task? Please explain in details.....

EVALUATING

Answer the following questions after you finish the task. 1. What is the objective of this task?..... 2. Do you think you have reached such objective after completing the task?...... 3. Can you apply the knowledge you have to complete this task?..... 4. How much knowledge you have learned in this Unit help you to complete the task (answer in percentage)?..... 5. Do you go over the task again before handing it in?..... 6. Which aspect that you go over?..... 7. What do you change?..... 8. Do you check if you have completed everything as required by the task? How? 9. Are the strategies that you chose to complete this task efficient enough or not? 10. If not, explain why?.....

Record Sheet for Outside Class Activities

Date from.....1997

This week, I have participated in the following outside class activities in order to help me improve my English

Activities	time spent	Place

I have learned something new from doing such activities e.g.:

I chose to do such activities because
These are the problems I had when I was doing such activities
I solved these problems by
(please ask for more record sheet from the teacher)

A proforma asking about advantages and disadvantages of independent study

After being involved in learning independently in the SALL, I see the following advantages and disadvantages of this type of learning as follows

Advantages	Disadvantages

Overall, I think this way of learning is:

very useful		*				not useful			
	No								

Please $\sqrt{}$ the appropriate box to show your opinion

Observation Sheet

Students
Learner Training Aspect
Steps of teaching
-Was the teacher explain or elicit from the students when she introduced the learner
training activity?
-What was the content of the explanation or the elicitation (e.g. objectives of the activity,
how to do it, etc.)
-What were the students' behaviour or reactions at this stage (e.g. attentive, bored, do
other things, etc.) please describe
-Do you think the students understood what the teacher asked them to do? How can you
tell from the video?
-If they didn't understand or follow what the teacher was doing, do you think what
seemed to be the problems?
What are the overall comments that you get from this class? (please include the teacher's
teaching and students' behaviour)
and 57

ASSIST

Approaches and Study Skills Inventory for Students

(Short version)

This questionnaire has been designed to allow you to describe, in a systematic way, how you go about learning and studying. The technique involves asking you a substantial number of questions which overlap to some extent to provide good overall coverage of different ways of studying. Most of the items are based on comments made by other students. Please respond truthfully, so that your answers will accurately describe your actual ways of studying, and work your way through the questionnaire quite quickly.

Background information

Name or	Identifier	 Age years	Sex M/F
University	or College	 Faculty or School	
Course		 Year of study	

A. What is learning?

When you think about the term 'LEARNING ', what does it mean to you? Consider each of these statements carefully, and rate them in terms of how close they are to your own way of thinking about it.

		Very close	Quite close	Not so close	Rather different	Very different
8.	Making sure you remember things well.	5	4	3	2	1
Ġ.	Developing as a person.	5	4	3	2	1
c.	Building up knowledge by acquiring facts and information.	5	4	3	2	1
d	Being able to use the information you've acquired.	5	4	3	2	1
e.	Understanding new material for yourself.	5	4	3	2	1
f.	Seeing things in a different and more meaningful way.	5	4	3	2	1

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Please turn over

B. Approaches to studying

The next part of this questionnaire asks you to indicate your relative agreement or disagreement with comments about studying again made by other students. Please work through the comments, giving your immediate response. In deciding your answers, think in terms of this particular lecture course. It is also very important that you answer all the questions: check you have.

5 means agree (\checkmark) $4 = agree somewhat (\checkmark?)$ 2 = disagree somewhat (x?) 1 = disagree (x). Try not to use 3 = unsure (??), unless you really have to, or if it cannot apply to you or your course.

	1	12	??	x?	x
1. I manage to find conditions for studying which allow me to get on with my work easily.	5	4	3	2	1
2. When working on an assignment, I'm keeping in mind how best to impress the marker.	5	4	3	2	1
3. Often I find myself wondering whether the work I am doing here is really worthwhile.	5	4	3	2	1
4. I usually set out to understand for myself the meaning of what we have to learn.	5	4	3	2	1
5. I organise my study time carefully to make the best use of it.	5	4	3	2	1
6. I find I have to concentrate on just memorising a good deal of what I have to learn.	5	4	3	2	1
7. I go over the work I've done carefully to check the reasoning and that it makes sense.	5	4	3	2	1
8. Often I feel I'm drowning in the sheer amount of material we're having to cope with.	5	4	3	2	1
9. I look at the evidence carefully and try to reach my own conclusion about what I'm studying.	5	4	3	2	1
10. It's important for me to feel that I'm doing as well as I really can on the courses here.	5	4	3	2	1
11. I try to relate ideas I come across to those in other topics or other courses whenever possible.	5	4	3	2	1
12. I tend to read very little beyond what is actually required to pass.	5	4	3	2	1
13. Regularly I find myself thinking about ideas from lectures when I'm doing other things.	5	4	3	2	1
14. I think I'm quite systematic and organised when it comes to revising for exams.	5	4	3	2	1
15. I look carefully at tutors' comments on course work to see how to get higher marks next time.	5	4	3	2	1
16. There's not much of the work here that I find interesting or relevant.	5	4	3	2	1
17. When I read an article or book, I try to find out for myself exactly what the author means.	5	4	3	2	1
18. I'm pretty good at getting down to work whenever I need to.	5	4	3	2	1
19. Much of what I'm studying makes little sense: it's like unrelated bits and pieces.	5	4	3	2	1
20. I think about what I want to get out of this course to keep my studying well focused.	5	4	3	2	1
21. When I'm working on a new topic, I try to see in my own mind how all the ideas fit together.	5	4	3	2	1
22 I often worry about whether I'll ever be able to cope with the work properly.	5	4	3	2	1
23. Often I find myself questioning things I hear in lectures or read in books.	5	4	3	2	1
24. I feel that I'm getting on well, and this helps me put more effort into the work.	5	4	3	2	1
25. I concentrate on learning just those bits of information I have to know to pass.	5	.4	3	2	1
26. I find that studying academic topics can be quite exciting at times.	• 5	4	3	2	1
27. I'm good at following up some of the reading suggested by lecturers or tutors.	5	4	3	2	1
28. I keep in mind who is going to mark an assignment and what they're likely to be looking for.	5	4	3	2	1
29. When I look back, I sometimes wonder why I ever decided to come here.	5	4	3	2	1
30. When I am reading, I stop from time to time to reflect on what I am trying to learn from it.	5	4	3	2	1

ē	1	√?	77	x?	x	
31. I work steadily through the term or semester, rather than leave it all until the last minute.	5	4	3	2	1	
32. I'm not really sure what's important in lectures so I try to get down all I can.	5	4	3	2	1	
33. Ideas in course books or articles often set me off on long chains of thought of my own.	5	4	3	2	1	
34. Before starting work on an assignment or exam question, I think first how best to tackle it.	5	-4	3	2	1	
35. I often seem to panic if I get behind with my work.	5	4	3	2	1	
36. When I read, I examine the details carefully to see how they fit in with what's being said.	5	4	3	2	1	
37. I put a lot of effort into studying because I'm determined to do well.	5	4	3	2	1	
38. I gear my studying closely to just what seems to be required for assignments and exams.	5	4	3	2	1	
39. Some of the ideas I come across on the course I find really gripping.	5	4	3	2	1	
40. I usually plan out my week's work in advance, either on paper or in my head.	5	4	3	2	1.	
41. I keep an eye open for what lecturers seem to think is important and concentrate on that.	5	4	3	2	1	
42. I'm not really interested in this course, but I have to take it for other reasons.	5	4	3	2	1	
43. Before tackling a problem or assignment, I first try to work out what lies behind it.	5	4	3	2	1	
44. I generally make good use of my time during the day.	5	4	3	2	1	
45. I often have trouble in making sense of the things I have to remember.	5	4	3	2	1	
46. I like to play around with ideas of my own even if they don't get me very far.	5	4	3	2	1	
47. When I finish a piece of work, I check it through to see if it really meets the requirements.	5	4	3	2	1	
48 Often I lie awake worrying about work I think I won't be able to do.	5	4	3	2	1	
49 It's important for me to be able to follow the argument, or to see the reason behind things.	5	4	3	2	1	
50. I don't find it at all difficult to motivate myself.	5	4	3	2	1	
51. I like to be told precisely what to do in essays or other assignments.	5	4	3	. 2	.1	
52. I sometimes get 'hooked' on academic topics and feel I would like to keep on studying them.	5	4	3	2	1	

C. Preferences for different types of course and teaching

5 means definitely like (\checkmark) 4 = like to some extent $(\checkmark?)$ 2 = dislike to some extent (x?) 1 = definitely dislike (x). Try not to use 3 = unsure (??), unless you really have to, or if it cannot apply to you or your course.

			1	17	77	x7	x	
8.	lecturers who tell us exactly what to put down in our notes.	5	4	V? 3		2	1	
b.	lecturers who encourage us to think for ourselves and show us how they themselves think	5	4	3		2	1	
c.	exams which allow me to show that I've thought about the course material for myself.	5	4	3		2	1	
d.	exams or tests which need only the material provided in our lecture notes.	5	4	3		2	1	
e.	courses in which it's made very clear just which books we have to read.	5	4	3		2	1	
f.	courses where we're encouraged to read around the subject a lot for ourselves.	5	4	3		2	1	
g	books which challenge you and provide explanations which go beyond the lectures.	5	4	3		2	1	
h	books which give you definite facts and information which can easily be learned.	5	4	3		2	1	

Finally, how well do you think you have been doing in your assessed work overall, so far?

Please rate yourself objectively, based on the grades you have been obtaining

Very well		Quite Well		About average		Not so well		Rather badly	
9	8	7	6	5	4	3	2	1	

Thank you very much for spending time completing this questionnaire: it is much appreciated.

แบบสอบฉามนี้จัดทำขึ้มเพื่อให้ท่านอธิบายวิธีการเรียนของท่าน ข้อความส่วนใหญ่มาจากข้อคิดเห็น ของนักสึกษาอื่น ๆ กรุฉาตอบตามความเป็นจริง เพื่อว่าคำตอบของท่านจะได้อธิบายวิธีเรียนของท่าน อย่าง <u>ถูกต้อง</u> โปรดตอบแบบสอบฉานอย่าง <u>รวดเร็ว</u> ทันทีที่อ่านข้อความในแต่ละข้อจบ

I. การเรียนคืออะไร

ท่านลิดว่า "การเรียน" หมายความว่าอย่างไร

. จงพิจารณาข้อกวามแค่ละข้ออย่างลี่ถ้วน และวงกลมหมายเลขที่ใกล้เคียงกับการเรียนของท่านที่สุด

		โกฉ้เลียง มาก	ก่อนข้าง ใกล้เกียง	ไม่ไกล้ เลียง	ก่อนข้าง ต่าง	ต่าง มาก
. 1.	การเรียนคือการที่ท่านด้องจำทุกอย่างให้ได้	5	4	3	2	1
2.	การเรียนก็อการพัฒนาคัวของท่านให้สมบูรณ์ขึ้น	5	4	3	2	1
	การเรียนคือการรวบรวมความรู้จากข้อมูลและ ความอริงค่าง ๆ	5	4	3	2	1
	การเรียนคือการสามารถที่จะใช้ข้อมูลที่ท่านมือยู่ใค้	5	4	3	2	1
	การเรียนถือการเข้าใจสิ่งใหม่ ๆ ได้ด้วยคนเอง	5	4	3	2	1
6.	การเรียนถือการของสิ่งค่าง ๆ ในฉักษณะที่ แตกต่างงาณดิมแฉะมีความหมายแก่คัวท่านมากขึ้น	5	4	3	2	1

II. วิธีเวียน

จงลิดถึงวิชา <u>LNG 101 ซึ่งท่านเรียนปีที่แล้ว</u> แล้วอ่านวิรีเรียนที่นักสึกษาลนอื่น ๆ ใช้ พิจารณาลูว่า ข้อความนั้นตรงกับคัวท่านหรือไม่ จงแสดงความลิดเห็นของท่านโดย *วงกลม* ล้อมรอบตัวเฉขบน มาตราส่วนประมาณล่า 5 ระดับ

5 = เห็นด้วย (V) 4 = ก่อนข้างเห็นด้วย (V?) 2 = ไม่ก่อยเห็นด้วย (X?) 1 = ไม่เห็นด้วย (X)

พยายาม อย่า วงกลมหมายเลข 3 = ไม่แน่ไจ (??) นอกจากจะจำเป็นจริง ๆ หรือเมื่อวิธีการเรียน

นั้นไม่สามารถจะนำมาประชุกค์ใช้กับคัวท่านได้

<i>#</i>	ิ์วิชา LNG 101					
е	7	Nr.	77	X?	x	α,
 ฉันพยายามหาสภาวะที่ทำให้ฉันทำงาน เช่น อ่านหนังสือ 	5	4	3	2	1	
หรือทำรายงานได้โดยไม่สาบาก (เช่นดินเร้าเพื่อที่จะได้เงียบ						
และมีสมาริ)						
 เมื่อค้องทำงานส่ง ฉันกิคว่าทำอย่างไรจึงจะทำให้ อาจารย์ชอบงานของฉัน 	5	4	3	2	1	
 ฉันสงสัชปอย ๆ ว่างานที่ฉันกำฉังทำนั้นมีคุณค่าหรือไม่ 	5	4	3	2	1	9

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		วิชาไ	ING 1	01	
	\checkmark	$\sqrt{2}$	77	XI	x
 ฉันด้องพยายามเข้าใจกวามหมายของสิ่งที่ฉันด้องเรียน 	5	4	3	2	1
 ฉันพยายามจัดเวลาเรียนเพื่อที่จะได้เรียนได้อย่างเต็มที่ 	5	4	3		. 1
 ฉันพบว่าในการเรียน ฉันค้องเน้นการท่องจำอย่างมาก 	5	4	3	2	1
 ฉันกลับไปทบทวนดูงานที่ทำเพื่อตรวงสอบว่างานที่ทำไปนั้น 	5	4	3	2	1
คีมีเหตุผลแล้วหรือยัง					1942
 ฉันรู้สึกบ่อย ๆ ว่าฉันมีงานค้องทำฉันมือ 	5	4	3	2	1
 เวลนรียนและอ่านหนังสือฉันดูเหตุผลและหลักฐานต่าง ๆ อย่าง 	5	4	3	2	1
รอบคอนเพื่อพยายามที่จะหาง้อสรุปและเข้าใจในสิ่งที่ฉันกำลังเรียน		20 (125)			
10. มันเป็นสิ่งสำคัญสำหรับฉันที่ค้องเรียนวิชานี้ให้ได้ดี	5	4	3	2	1
เท่ากับวิชาอื่น ๆ					
11. ฉันพยายามเชื่อมโยงสิ่งที่เรียนรู้ในวิชานี้เจ้ากับวิชาต่าง ๆ ที่กำลัง	5	4	3	2	1
เรียนอยู่					
12. ฉันดูหนังสือพอให้สอบผ่านเท่านั้น	5	4	3	2	1
13. ฉันกิคฉึงสิ่งที่รู้จากการฟังกำบรรยายของอาจารย์ในขณะที่	5	4	3	2	1
กำถังทำถึงอื่นเสมอ					3 2 0
14. ขณะที่ท่องหนังสือเพื่อเหรียมสอบ ฉันกิดว่าฉันเป็นกนที่ก่อนข้าง	5	4	3	2	1
มีระบบและจัดการกับการเรียนได้อย่างมีขั้นตอน					
15. ฉันอ่านข้อกิคเห็นและกำวิจารณ์ของอาจารย์อย่างลี่ถ้วน	5	4	3	2	1
เพื่อหาทางที่จะทำละแนนให้สูงขึ้นในการทำงานครั้งค่อไป					
16. ฉันกิดว่างานที่ทำในวิชาที่กำลังเรียนไม่น่าสนใจหรือไม่ตรงกับ	5	^{~~} 4	3	2	1
จุดประสงก์ของวิชา					
17. เมื่อฉันอ่านบทลวามหรือหนังสือ ฉันพยายามกั้นหาว่าผู้แต่ง	5	4	3	2	1
ด้องการที่จะสื่ออะไรหรือหมายกวามว่าอะไร					2
18. เมื่อใหร่ก็ตามที่ด้องทำงาน ฉันก่อนข้างที่จะทำได้ดี	5	4	3	2	1
19. ฉันไม่ล่อยเข้าใจสิ่งที่ฉันเรียนเท่าไรนัก เพราะมันไม่ล่อยมีส่วน	5	4	3	2	1
เกี่ยวข้องสัมพันธ์กัน					
20. ฉันกิคถึงจุลประสงก์ของวิชาเพื่อจะได้รู้ว่าจะค้องเน้นจุลใด	5	4	3	2	1
21. เวลนรียนหัวข้อใหม่ ฉันพยายามกิคว่าสิ่งที่เรียนนั้นเกี่ยว	5	4	3	• 2	1
เนื่องกันอย่างไร				8	
22. ฉันกังวลว่าฉันสามารุลที่จะจัดการกับงานต่าง ๆ ที่ได้รับ	5	4	3	2	1
มอบหมายให้ทำเหมาะสมหรือไม่					
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í.	- · · · · · · · · · · · · · · · · · · ·		12.	17	żη	x	
ŝ	23. ฉันสงสัยในสิ่งที่ได้รับจากการฟังกำบรรยายหรือ 5	i	4	3	2	1	
	จากการอ่านหนังสือบ่อย ๆ		(2)				
2 20	24. ฉันรู้สึกว่าฉันเรียนไปได้ดี ดังนั้นฉันจึงพยายามที่จะเรียนให้ 5	5	4	3	2	1	
	มากขึ้น			-	č.	8	
	25. ฉันสนใจเฉพาะจุดที่รู้ว่าจะทำให้สอบผ่าน	5	4	3	2	1	
	26 บางกรั้งฉันกิคว่าหัวข้อการเรียนที่เป็นวิชาการหรือเป็นทฤษฎี	5	4	3	2	1	
	มาก ๆ น่าสนใจเหมือนกัน				34		
	27. ฉันอ่านหนังสือที่อาจารข์แนะนำใค้ทันเวลา	5	4	3	2	1	
•		5	4	3	2	1	
	ด้องการอะไรจากงานที่ให้				8	-	
	de a arre da arregana	5	4	3	2	. 1	
•	เถือกเรียนที่นี่		27291	•	-	(*) (* .	
•	den a En acabella	5	4	3	2		
	ถึงที่อ่าน	5	-	3	2		•
	31. ฉันทำงานอย่างสม่ำเสมอหลอดเทอมมากกว่าที่จะทิ้งเอาไว้	<		3	. 2		×
	จนถึงก่อนสอบปลาชภาล			3	. 4		
		5		3	•		
	32. เริ่มที่เป็นร้างเป็น แน่นี้แองเม่นไข้ร้างอาเมอน จุ่มนากษู ดังนั้นฉันจึงพยายามจุดทุกอย่างที่ได้ฟัง	5		3	2	T	
9) 20	33. ซึ่งที่ได้จากหนังสือหรือบทลวามที่อ่านทำให้ฉันลิคไปไกล	5		2	•		
	33. ถ่อนที่จะเริ่มค้นทำงานที่ได้รับมอบหมาะหรือตอบกำถามเวลา	5	2	3	2	1	8
ę	34. แอนแจะเวมหน้แฟ เน่ท เหรามมอบหม เอกรอดอาก เขามเรนา สอบ ฉันลิคหาวรีที่ดีที่สุดที่จะทำให้ประสบความสำเร็จ	2	4	3	2	1	
3	35. ฉันวิตกถ้าทำงานไม่ทัน	5	. 4	3		1	
	36. งณะที่อ่านหนังสือ ฉันอ่านง้อปลีกย่อยอย่างละเอียคเพื่อดูว่า	5	4	3	2	1	
	ง้อปลึกย่อยเหล่านั้นใส่เข้ามาเพื่ออะไร				×		
	37. ฉันใช้ความพยายามในการเรียนอย่างมาก เพราะว่าฉันตั้งใจว่าจะ	5	4	3	2	1	
	เรียนให้ได้ดี	0					
	38. ฉันพยายามท่องหนังถือและเรียนในจุดที่จะด้องใช้ในการทำงาน	5	4	3	2	: 1	
	และการสอบ		28		<i>40</i>		
<i></i>	39. ความกิด (140a) บางอย่างที่ฉันได้รับจากการเรียนเป็นสิ่งที่น่าสนใจมาก	5	4	3	1 2	2.1	Ľ
ŀ	40. ฉันวางแผนส่วงหน้าในการทำงานแต่ละอาทิตย์ โดยการเขียน	5	4	. 3	3 1	2 1	L
	องบนกระคายหรือไม่ก็วางแผนไว้ไนใจ			ла XS		2	

	а а а	วิชา LNG 10				
27		\checkmark	$\sqrt{2}$??	X?	x
41.	ฉันกอยสังเกตว่าอาจารย์กิดว่าจุดไหนสำกัญแถ้ว ฉัน พยายามให้ความสำกัญกับจุดนั้น	5	4	3	2	1
42.	ฉันไม่ก่อยสนใจวิชานี้เท่าไรนัก แต่ก็ด้องลงเรียนเพราะ เหตุผลบางประการ	5	4	3	2	1
43.	ก่อนที่จะแก้ปัญหาหรือทำงานที่ได้รับมอบหมาย ฉันจะเริ่ม ด้วยการหาว่าอะไรอยู่เบื้องหลังปัญหาหรืองานนั้น ๆ	5	4	3	2	1
4 4.	ฉันใช้เวลาช่วงกลางวันเรียนอย่างเต็มที่	5	4	3	2	1
45.	ฉันมีปัญหาในการทำความเข้าใจในสิ่งที่ฉันต้องจำ	5	4	3	2	1
46.	เมื่อฉันมีกวามกิดใหม่ ๆ เกิดขึ้นในวิชานี้ ฉันชอบกิดเล่น ๆ	5	4	3	2	1
	เกี่ยวกับความคิดนั้น แม้ว่ามันจะไปได้ไม่ไกลเท่าไรนัก					
47.	เมื่อทำงานเสร็จ ฉันตรวจสอบงานทั้งหมดอีกกรั้งว่าฉันได้ ทำกรบถ้วนตามกวามด้องการแถ้วหรือยัง	5	4	3	2	1
48.	ฉันนอนไม่หลับเพราะกังวลถึงสิ่งที่คิดว่าตัวเองจะทำไม่ได้	5	4	3	2	1
49.	สิ่งสำคัญสำหรับฉันคือ การที่ฉันสามารถที่จะเข้าใจความคิด	5	4	3	2	1
	ที่เป็นการโด้แข้ง และเข้าใจเหตุผลที่อยู่เบื้องหลังความกิดต่าง ๆ ได้		a.			8
50.	ฉันไม่คิดว่าการสร้างแรงจูงใจในการเรียนเป็นสิ่งที่ยากสำหรับฉัน	5	4	3	2	1
51.	เวลาอาจารย์ให้ทำงาน ฉันด้องการให้อาจารย์บอกอย่างชัดเจน ว่าฉันด้องทำอะไรบ้าง	5	4	3	2	1
52.	บางกรั้งฉันสนใจกับหัวข้อค้านวิชาการและทฤษฎีมาก และกิดว่า อยากสึกษาหัวข้อนี้ค่อไปเรื่อย ๆ	5	4	3	2	1

III. ความขอบในวิชาที่เรียนและการสอนของอาจารย์

5 = ชอบมาก (V) 4 = ชอบบ้าง (V?) 2 = ไม่คอยชอบ (X?) 1 = ไม่ชอบเลย (X) พยายามอย่าเลือก 3 = ไม่แน่ใจ (??) นอกจากว่าท่านจำเป็นจะค้องเลือกหรือไม่ข้อความต่อไปนี้ไม่ สามารถจะใช้กับสถานะการณ์ของท่านหรือวิชาที่ท่านเรียน

ฉันชอบ	\checkmark	$\sqrt{2}$??	X?	x
 อาจารย์ที่บอกนักสึกษาทุกอย่างว่าอะไรสำคัญและอะไรที่ด้องจดโน้ต 	5	4	3	2	1
 อาจารย์ที่กระคุ้นให้นักสึกษาลิดเองและแสดงให้นักสึกษาดูว่าอาจารย์ 	5	4	3	2	1
ใช้วิธีคิดอย่างไร					
 ง้อสอบที่นักสึกษาสามารถแสดงความคิดของตัวเอง 		4			
 ข้อสอบหรือการทดสอบย่อยที่ถามเฉพาะเนื้อหาที่มีอยู่ในกำบรรยาย ของอาจารย์ 	5	4	3	2	1
 วิชาที่บอกอย่างชัคเจนว่านักศึกษาจะต้องเรียนหนังสืออะไรบ้าง 	5	4	3	2	1
 วิชาที่ต้องการให้นักกึกษาอ่านหนังสืออื่น ๆ ที่เกี่ยวข้องเพื่อให้เข้าใจ ยิ่งขึ้น 	5	4	3	2	1
 หนังสือที่ท้าทายนักสึกษาและมีคำอธิบายซึ่งให้ความรู้เกินกว่าคำ บรรยายของอาจารย์ 	5.	4	3	2	1
 หนังสือที่ให้ข้อเท็จจริงและข้อมูลที่แน่นอนที่ทำให้เรียนได้ง่าย ๆ 	5	4	3	2	1

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LNG 102 Record Sheet

Name..... Department.....Year....

Number of work done	date	Types of work done	Student's own comment	Teacher's comment
				4))
2				

Appendix C Results of the Research

Appendix C contains the information related to the results of the research

- Factor pattern matrix of the subjects and the representatives of first year engineering students' approaches to studying LNG 101

Factor Pattern Matrix of the Subjects and the Representatives of First Year Engineering Students' Approaches to Studying LNG 101

	Factor 1	Factor 2	Factor 3
Deep Approach			
Seeking meaning	.60		
Relating ideas	.76		
Use of Evidence	.58		
Interest in ideas	.37		
Strategic Approach			
Organised studying			.61
Time management			.66
Achieving			.63
Monitoring effectiveness	.32		
Surface Apathetic Approach			
Lack of purpose		.48	
Unrelated memorising		.58	
Syllabus-boundness		.61	
Fear of failure		.52	

Loadings less than .3 have been omitted

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