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Title Page

**THE TEACHING OF HIGHER-ORDER THINKING SKILLS IN
ENGLISH LANGUAGE CLASSROOMS: WHERE ARE WE?**

By

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Theses Submitted to the Centre of Graduate Studies, Universiti Utara Malaysia,
in Fulfillment of the Requirement for Master Degree



Kolej Sastera dan Sains
College of Arts and Sciences
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ABSTRAK

Kajian kes ini telah dijalankan untuk menyelidik pengetahuan, kepercayaan dan sikap guru-guru terhadap pelaksanaan pengajaran kemahiran berfikir di Sekolah Menengah Kebangsaan Pokok Pinang (bukan nama sebenar). Disamping itu, ia juga bertujuan untuk menyelidik amalan guru di dalam bilik darjah bagi mengenalpasti sebarang usaha yang dijalankan untuk menggalakkan penggunaan kemahiran berfikir di kalangan pelajar. Data yang dikumpulkan melalui pemerhatian, temubual dan analisis dokumen telah menunjukkan bahawa terdapat usaha-usaha yang dijalankan untuk melaksanakan pengajaran kemahiran berfikir di dalam kelas Bahasa Inggeris. Walaubagaimanapun, oleh kerana pengetahuan pedagogi yang terhad, seringkali strategi yang digunakan kurang berkesan. Tambahan lagi, pelaksanaan pengajaran kemahiran berfikir di dalam bilik darjah memerlukan para guru memiliki sikap dan kepercayaan yang betul terhadap kemahiran-kemahiran tersebut.

ABSTRACT

This case study was carried out to investigate teachers' knowledge, belief and attitude towards the implementation of the teaching of higher-order thinking skills in Sekolah Menengah Kebangsaan Pokok Pinang (not the school's real name). Besides that, it also seeks to examine teachers' classroom practices to see whether attempts were made to promote thinking skill among the students. Data was collected through observations, interviews and document analysis. Findings revealed that there were efforts made to infuse thinking skills in the English Language classrooms. However, due to limited pedagogical content knowledge, most of the time teaching strategies that promote thinking skills were underutilized. In addition, the implementation of thinking skills in the classroom requires that teachers possess the right attitude and beliefs towards those skills.

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CHAPTER ONE

1.1 Introduction

The ability to think effectively is very important in today's world which is becoming more complex and sophisticated. Higher-order thinking skills are important life skills for people today. With modernization and rapid socio-economic changes, people are called upon to solve various problems and make numerous decisions. Furthermore, information technology era has also provided the people with countless information at their finger tips which sometimes are confusing. In addition, the authenticity and validity of this information is also questionable. Thus, people need to exercise their thinking skills in making selection.

Apart from the above, it is widely accepted that most of the educators never deny the importance of teaching higher-order thinking skills to the students so that they would become more critical and analytical thinker. In Malaysia itself, the notion of teaching higher-order thinking skills is not a new idea in its education system. Over a decade, a great deal has been done to promote the teaching of higher-order thinking skills in Malaysian classrooms through various programs. In fact, the elements of critical and creative thinking skills have been clearly spelled out in our curriculum affecting all subjects including English Language.

The incorporation of thinking skills in the teaching of English Language is seen pertinent in current situation as it is believed to be able to increase students' motivation in learning the English Language as a living language rather than as a subject. However, the question is whether or not the higher-order thinking skills are being explicitly taught as what they are supposed to be. Thus, this study is aimed at examining the extent of the implementation of teaching higher-order thinking skills in English Language classrooms, the teachers' knowledge and belief as well as their attitudes in this area. Thus, there exists a need to look at teachers as agent of change.

1.2 Thinking Skills in Malaysian Curriculum

Generally, the current Malaysian education is guided by the National Education Philosophy which gives direction in creating good citizens and good human beings. The National Education Philosophy states:

Education in Malaysia is an on-going effort towards further developing the potential of individuals in a holistic and integrated manner, so as to produce individuals who are intellectually, spiritually, emotionally and physically balanced and harmonious, based on a firm belief in and devotion to God. Such an effort is designed to produce Malaysian citizens who are knowledgeable and competent, who possess high moral standards, and who are responsible

and capable of achieving a high level of personal well-being as well as being able to contribute to the betterment of the society and the nation at large.

(Educational Planning and Research Division, 1994)

By virtue of the NEP, various reform efforts were made to produce individuals who are intellectually, spiritually, emotionally and physically balanced and harmonious. Therefore, in 1988 the Integrated Secondary School Curriculum (also known as KBSM) was introduced to give more focus on developing thinking skills as one of its objective. Thus, there is a gradual shift in our education system from learning to thinking. We want students to think for themselves and not merely learn what other people have taught. Although there are other objectives like “to acquire knowledge and to a mastery of skills and to use them in daily life”, the explicit mention of the developing students’ rational, critical and creative thinking in the curriculum has necessitated the teaching of higher-order thinking skills in the schools. The importance of teaching thinking skills is further strengthened when the curriculum also provides that “ the content of the curriculum promote the development of thinking abilities to enable students to analyze, synthesize, explain, draw conclusions, and produce ideas that both constructive and useful” (Curriculum Development Center, 1989). In line with this, English Language teachers are reminded about their responsibility to infuse higher-order thinking skills in their classrooms’ practice when the former Director-General of Education Datuk Matnor Daim stressed that the students have

to learn to manipulate ideas and feelings that are contained in text they read, and that needs thinking skills (Indramalar, 1997). This means that thinking skills should be explicitly taught to the students in a more systematic manner.

However, regardless of various programmes relating to the teaching of thinking skills in Malaysian schools, the effort of developing thinking skills among Malaysian students never stop. In late 1990s, Malaysian Curriculum Department Centre once again revised the ISSC in which the strengths and weaknesses of the curriculum were identified by giving considerations to the issues associated with the contents, skills, values and attitudes, teaching and learning processes as well as evaluation and assessment. Through the mapping of these aspects, adjustments to the curriculum were made. Due to the revision of the existing curriculum, there are eight teaching and learning strategies are given emphasize and special attention. The strategies are:

- Thinking skills
- Application of Multiple Intelligences Theory
- Information and communication technology (ICT)
- Future studies
- Constructivism learning
- Contextual learning
- Self access learning
- Mastery learning.

(Curriculum Development Centre, 2002)

The eight features of the strategies have resulted in the use of activity-based and student-centred pedagogical approaches to facilitate the development of critical and creative thinking skills. For example the revised English Language curriculum specification have listed numerous learning outcomes to be achieved by exercising thinking skills which include problem solving, analytical decision making, inquiry and discovery, and self-paced and self-directed learning. In addition, the outcomes intended to be achieved are more of students based. The textbooks used also have been changed to include elements of thinking skills and to serve as a guideline for the teachers to prepare the materials and plan for the classroom activities. In fact, the Ministry of Education has announced a policy in which by the year 2000, a minimum of 60 per cent of the public examination questions will test the creative and analytical thinking skills of the students (Rajendran, 2001).

To sum up, I can say that our government is consistent in creating a thinking generation. However, the primary questions that might cross our mind are “do the teachers in schools have put the changes made into practice? If they really do, to what extent the implementation has been realized and what are the things that encourage or deter them from doing so?

1.3 Research Objectives

This study is intended to focus on the following issues:

- i) teachers' knowledge on critical thinking skills;
- ii) teachers' attitudes towards the teaching of higher-order thinking skills into English Language curriculum;
- iii) the implementation of the teaching of thinking skills in English Language classroom; and
- iv) the challenges and problems faced by the teachers in teaching higher-order thinking skills in their classrooms.

1.4 Research Questions

Based on the objectives, this study is guided by the following research questions:

- i) What do teachers know or understand about thinking skills?
- ii) What are the teachers' attitudes towards the teaching of thinking skills in English Language curriculum?
- iii) Do the teachers really teach or incorporate the teaching of thinking skills in ESL classroom?
- iv) What are the challenges and problems faced by the teachers in teaching thinking skills in ESL classrooms?

1.5 Research Significant

Result which will accrue from this study will not only give us an indication of whether or not the ESL teachers are positive about the incorporation of critical thinking skills in language classroom but also indicate the challenges that might arise out of teaching those skills to the ESL learners. The results would also reveal the reasons as to why the ESL teachers are behaving positively or negatively towards the teaching of thinking skills in ESL syllabus. Furthermore, the results to be obtained may also be used to decide on the best course of action to be taken in determining the objectives to be achieved with the inclusion of elements of thinking skills into ESL syllabus is successful.

1.6 Limitations

As a result of this study, a few limitations have been identified to make future studies better. The first limitation is that the findings of this study did not permit generalization. This is because the research was conducted to examine the implementation of the teaching of thinking skills on three English Language teachers in SMK Pokok Pinang (not the school's real name). The small number of participants does not allow representation of the whole population as in the case of quantitative approaches.

Another limitation is that this study was conducted to study teachers' point of views in relation to the teaching of thinking skills. There was no attempt made to study students' perceptions and readiness to engage in thinking activities. As such, the actual scenario pertaining to the issue of thinking skills in English Language classrooms could not be visualized.

Finally, time constraint is also seen as another limitation that hinders the researcher from investigating the situation deeper. The duration of approximately four months was relatively short for a qualitative case study. As such, there were only three classroom observations could be conducted for each teacher in which the data accrued was quite limited. It is believed that, if there was longer duration allocated for this study, more data to support the findings could be obtained.

1.7 Conclusion

This study will investigate the implementation of higher-order thinking skills in English Language classrooms. It will also focus on some issues which have an impact on the teaching of thinking skills. The issues include teachers' knowledge, attitudes and patterns of their classroom practices in relation to the teaching of the skills. On top of that, this study also seeks to identify problems and challenges faced by the teachers which limit the opportunity to teach thinking skills in their respective classrooms.

CHAPTER TWO

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 Introduction

This study generally seeks to investigate the practice of teaching or infusing higher-order thinking skills in English Language classroom. The notion of higher-order thinking skills has been a prominent issue in education especially in relation to meeting the demand of globalization and the information age. Thus, the Malaysian government sees the importance of producing Malaysian citizens who can think skillfully towards providing world class education. As such, now the burden lies on the education system to ensure that proper actions are taken so that thinking generations can be produced. Taking off from this premise, various steps have been taken by the Ministry of Education as mentioned in the earlier part of this paper. However, before researching in this area, it is important to take a closer look at a number of previous studies as well as the theories behind it so that a clearer picture can be formed to guide this study.

2.2 Theoretical Framework

Generally, higher-order thinking skills are the intellectual skills such as the skills of memorizing and recalling facts and information, clarifying, analyzing, generating ideas, making decisions and solving problems. Before discussing

further about the notion of higher-order thinking skills and theories underpinning these skills, it is important to define the term “thinking”.

2.2.1 Critical Thinking Skills

According to Sigel (1984 as cited in Rajendran, 2002), the term thinking ranges from “reflection, mediation, and cogitation (suggesting passive reception) to mental actions such as conceptualization and problem solving (implying an active approach)”. There are a number of conceptions advocated by the researchers and educators in relation to thinking such as critical thinking, divergent or creative thinking, reasoning (moral, inductive, deductive, formal, informal), problem solving and decision making. All these conceptions fall under the larger construct of higher-order thinking skills as opposed to lower-order thinking (Onosko and Newmann, 1994 quoted in Rajendran, 2001) which generally involve repetitive operations such as listing information previously learned formulae, applying procedural rules, and other routinized thinking activities.

As discussed in the earlier part of this study, in Malaysian English Language curriculum, the higher-order thinking skills are divided into two broad categories that are critical and creative thinking skills. Thus, it is essential to define those skills so that it will serve as a guideline in addressing the research questions.

Different scholars proposed different definitions of higher-order thinking skills depending on their background. John Dewey, the American philosopher, psychologist and educator who is widely regarded as the ‘father’ of the modern critical thinking tradition has regarded critical thinking as ‘reflective thinking’ which he defined as:

Active, persistent, and careful consideration of a belief or supposed form of knowledge in the lights of the grounds which support it and further conclusions to which it tends.

(Dewey, 1909)

Looking at the definition given by Dewey, by defining critical thinking as an active process, he is actually contrasting it with passive thinking in which we just receive ideas and information from someone else. For him, critical thinking involves thinking about things through ourselves, raise questions, find relevant information rather than learning in a largely passive way from someone (Fisher, 2001). However, the most striking element of Dewey’s definition is when he mentions about the ‘grounds which support’ a belief and the ‘further conclusions to which it tends’. This is because, what he really means is that what matters most in critical thinking are the reasons we have for believing something and the implications of our beliefs. Thus, it is not too much if I said that critical thinking

is the ability of an individual to give reasons and to evaluate reasoning as well as possible.

Building on Dewey's definition, Edward Glaser defined critical thinking as:

(1) an attitude of being disposed to consider in a thoughtful way the problems and subjects that come with the range of one's experience; (2) knowledge of the methods of logical enquiry and reasoning; and (3) some skill in applying those methods. Critical thinking calls for a persistent effort to examine any belief or supposed form of knowledge in the light of evidence that supports it and further conclusions to which it tends.

(Glaser, 1941)

The above definition given by Glaser is almost the same with the definition put forward by John Dewey. The word evidence used in the definition may be referred to the 'grounds which support' certain belief that is once again goes back to the ability to deduce reasons to support or justify one's stand.

Another definition of critical thinking which is widely used is the definition given by Robert Ennis (1989) who is also a great contributor to critical thinking tradition. He defines critical thinking as "reasonable reflective thinking that is focused on what to believe and do." This definition speaks up about 'what

to believe and do' which refers to the ability to make decisions. Thus, it adds up to another element of critical thinking that is decision making.

Michael Scriven, among the most recent philosophers defines critical thinking as skilled and active interpretation and evaluation of observations and communications, information and argumentation (Fisher and Scriven, 1997). There are a few striking new elements added to the elements of critical thinking given in this definition. Alec Fisher (2001) in his writing, *Critical Thinking: An Introduction* has illustrated this definition by saying that the definition includes 'interpretation' because critical thinking generally involves constructing and selecting the best of several alternatives and it is crucial preliminary to drawing conclusions about complex claims. 'Evaluation' is also included to describe the process of determining the merit, quality, worth or value of something and much critical thinking is concerned with evaluating the truth, probability or reliability of claims.

In a nutshell, the definitions above provide that higher-order thinking skills involve the ability to reason, make decisions, interpret and evaluate the truth or belief upon certain claims. Thus, not all thinking processes can be considered as higher-order thinking skills as they require certain degree of control over the execution of the thinking itself. Even though more stress is given on critical thinking skills in relation to higher-order thinking skills, but nothing comes solidly on those skills alone because the Ministry of Education has made it clear

that emphasize should be given to the element of critical and creative thinking skills collectively.

2.2.2 Creative Thinking Skills

Creative thinking skills as opposed to critical thinking skills generally deal with the ability to generate new ideas. Skills involved in making inventions and innovations can be classed under the creative thinking skills. According to Lubart (2001) creative thinking skills is geared towards the production of original, potentially workable, solutions to novel, ill-defined problems of relatively high complexity. Many approaches to enhancing creativity focus on solving novel and sometimes unstructured problems in new and unusual ways (Rajendran, 2001). For instance, two international, interscholastic competitions, the Future Problem Solving Program (Crabbe, 1982; Torrance, 1980 as cited in Rajendran, 2001) and Olympics of Mind (Gourley, 1981 as cited in Rajendran, 2001) use a problem-solving format to enhance creative thinking.

Now, we know that creative and critical thinking skills can be described as qualities of good thinking processes. While creative thinking is generally considered to be involved with the creation and generation of ideas, processes, experience or object, both are inter-related and help to compliment each other. Critical and creative thinking are grounded in the language arts in a variety of ways. For example, language art teachers used written language, in-depth analysis

of text, small group discussion as well as Socratic questions for enhancing critical and creative thought. Indeed, critical and creative thought are at the very core of literacy (Marzano, 1991).

2.2.3 Theories of Higher-Order Thinking Skills.

There are many theories underpinning the thinking skills practice. Theories of higher-order thinking take either a developmental or definitional focus. Developmental theories assume that there is a continuum of thinking ranging from lower forms to higher forms and students have to master the lower forms of thought before they are capable of higher forms. This theory suggests that higher-order thought is evident when students engage in cognitive processes such as classification, hypothesis-testing, analysis, synthesis, and evaluation. In contrast, definitional theories assume that students at all levels can engage in higher-order thought. This theory emphasizes on non-routine, intelligent problem-solving. For the purpose of this study, I would only examine on the developmental approaches as they are commonly used in our education system. This can be illustrated by looking at the steps in teaching thinking skills suggested by Curriculum Development Centre (2002). The steps are:

- Introduce the skills
- Students practice with teacher's guidance until they master the skills well.
- Students then practice without teacher's guidance using familiar topics and situations.

- Students then apply newly acquired skills in new situations, especially problem-solving situations.

These steps had undertaken the developmental approach as it begins with the mastery of the lower-order thinking skills before gradually develop towards the achieving higher-order thinking skills. In fact, after looking at both of approaches, I may conclude that the developmental approaches are more systematic and easier to be used and taught. However, I am not saying that developmental approaches are better than definitional approaches because the suitability of each approach is greatly influenced by the context of certain situations.

There are a few proponents of developmental approaches. However, for the purpose of this writing, I am going to discuss on Piaget's approach, Vygotsky's approach and Bloom's approach.

Piaget argued that with age and experience, children's thinking becomes increasingly abstract and logical. As a result, they can classify things properly and arrange things in terms of increasing magnitude. Once, the children are able to arrange their knowledge in this way, they can test hypotheses and draw valid inductive, deductive and transitive inferences ((Byrnes, 1996).

Similarly, Vygotsky shared Piaget's belief that there is a progression from lower forms of thought to higher forms of thought with development. However,

Vygotsky differs from Piaget in defining higher-order thinking. For Vygotsky, any skill is a lower form of thought if something or someone in the environment is totally controlling an actor's performance of the skill, the skill was not acquired through interaction with more competent individuals, and the activity is not mediated by symbol systems such as language (Byrnes, 1996). However, the same skill becomes a higher form of thought once the performer controls its execution, has conscious access to it, and uses self-talk to direct his or her performance. Thus, social interaction is the key to shifting a skill from the lower order version to the higher order version. Vygotsky argues that all higher psychological processes are originally social processes, shared between people, particularly between children and adults. The child first experiences active problem-solving in the presence of others (the adult or knowledgeable peer) but gradually comes to perform these functions independently (Rajendran, 2002).

Finally, Bloom and his colleagues (1956) proposed that knowing is actually composed of six successive levels arranged in a hierarchy. As the notion hierarchy implies, some types of knowledge are logical prerequisites to others. As such, Bloom's approach is similar to Piaget's and Vygotsky's approach in the assumption that certain forms of complex thinking are not attainable until other, simpler forms are mastered first. Bloom's taxonomy describes six levels of knowledge:

- i) The knowledge level;
- ii) The comprehension level;

- iii) The application level;
- iv) The analysis level;
- v) The synthesis level; and
- vi) The evaluation level.

The cognitive processes in the second half of these taxonomies i.e. the analysis level, synthesis level and the evaluation level are referred to the higher-order thinking because they require the learners to engage in complex, contextualized thinking to manipulate both information and abstract ideas in ways that transform their meaning (Killen, 2007). In other words, the learners are required to make judgements about uncertain issues, and to apply multiple criteria in order to make those judgements.

In summary, the developmental approaches emphasize on the natural progression in thinking from lower forms to higher forms with age or experience. The developmental progression implies that students need to have a certain amount of education, experience or practice before they can become capable of the highest forms of thought.

In realizing the teaching of higher-order thinking skills, there are a few instructional approaches that can be given consideration. The first approach is the separate or stand-alone approach. This approach is also known as teaching of thinking. In this approach, thinking skills are taught as a separate subject where

the students are taught explicitly by means of activities and exercises designed to improve thinking techniques or basic thinking ability (Maclure, 1991). This means that the thinking strategies are directly taught in a non-curricular context within a time period designated for thinking instruction.

The second approach is called indirect approach or also known as teaching for thinking (Rajendran, 2002). In this approach, thinking skills are clearly identified and taught where teachers use teaching methods such as cooperative learning, higher level questioning and graphic arrangement to stimulate students' thinking, thus, thinking is taught implicitly.

The third approach is infusion approach. The proponents of this approach identify and teach thinking skills with the content (Swartz & Parks, 1994). Teachers using this approach will spend the classroom time on thinking skill or process as well as on the content. The difference between the indirect approach and this approach is the later features a variety of effective teaching practices that characterizes the way thinking is explicitly emphasized. On contrary, the indirect approach, no thinking strategy is taught explicitly. There are two kinds of infusion, which are

- Complete infusion in which thinking skills are clearly identified and taught in each step of the lesson development.

- Partial infusion is where thinking skills are clearly identified and taught in one or more steps of the lesson development as a strategy such as compare and contrast.

Another approach which is believed to have a notable impact on the teaching practices in relation to the teaching of higher-order thinking skills. The approach is known as constructivist approach which was developed on Piaget's idea. The basic premise of constructivism is that knowledge is obtained and understanding is expanded through active construction and reconstruction of mental frameworks. Killen (2007) sees learning as not a passive process of simply receiving information because it involves deliberate, progressive construction and deepening of meaning. Killen further added that understanding involves the development of valid connections between new and existing knowledge and experiences.

There are a number of definitions of the term constructivism given by various scholars. Basically, the terms constructivism can be defined as an approach to learning in which learners are provided the opportunity to construct their own sense of what is being learned by building internal connections or relationships among the ideas and facts being taught (Borich & Tombari, 1997 as cited in Killen, 2007). It stresses that the learners actively construct knowledge for themselves by forming their own representations of the materials to be learned,

selecting information they perceive to be relevant, and interpreting this on the basis of their present knowledge and needs (Dart, 1994 as cited in Killen, 2007).

These views are actually developed based on Piaget's work that is focusing on the idea that a child construct his or her understanding of the world through interactions with the environment that trigger assimilation and/or accommodation (Killen, 2007). Thus, constructivism is actually centred on the idea of students' ability to form a connection between newly-gained knowledge with their background knowledge and further construct their own understanding. In other words, in using constructivist approach, it is essential to place the learners at the centre of the teaching endeavors, and structure learning environments and activities to help learners construct knowledge rather than just absorb it. Therefore, the role of a teacher is shifted from being the information giver to a facilitator of learning.

Apart from the above, there are many more instructional approaches developed by the scholars in education to guide the teachers in teaching thinking skills. Thus, it is left to the teachers whether to implement it or stick to the methods that had been long used as regards to their teaching practices.

2.3 Literature review

More than a decade ago, the government realized about the importance of producing a thinking society in order to meet the challenges of the globalization era. The thinking skills are seen as an important skill not only during the education process but also for the career perspective as people are required to use their critical minds to deal with various problems and make decisions. Thus, through the Integrated Secondary School Curriculum (ICSS), critical and creative thinking skills were incorporated to enable students to be a skillful thinker. In fact, ICSS provides that:

Another primary consideration in the ICSS is the development of thinking abilities. Every teacher is required to use teaching-learning methods and techniques which will stimulate, encourage, and develop the thinking abilities of students. This strategy is closely linked with the aims of the ICSS which emphasize the development of human intellect.

(Curriculum Development Centre. 1989)

The objective of creating students who are able to analyze, synthesize, explain, draw conclusion, and produce ideas that are constructive and useful has been translated into each and every subject taught in Malaysian secondary schools including English Language. In 2000, the teaching of thinking skills in secondary

schools was further reinforced when the Curriculum Development Centre revised the existing English Language curriculum. The current English Language curriculum uses knowledge not only from subject disciplines to provide the content for learning but it also includes current issues to enable the students to apply various skills including thinking skills to solve problems and issues as well as acquiring knowledge throughout their lives.

Thus, the current scenario is that the present English Language curriculum does not only stress on the acquisition of four language skills but also stresses on the ability of the students to think and express themselves critically and creatively (Nurliza Othman, 2002). Most of the times, in language teaching, learners are being fed with vocabulary, structures and grammatical rules, and thus, the language learning is limited into formulated moulds in order to present standard and grammatically accepted usages.

As mentioned earlier that this study aims at investigating the practice of teaching higher-order thinking skills in language classroom, thus, it is vital to explore the relationship between language teaching and thinking skills. How does language teaching help to foster the development of higher-order thinking skills or vice versa? There are a number of psychologists who suggested that thinking development should precede language development (Rajendran, 2001). Piaget being the leader of this position professed that students learn language by translating thoughts (notions, natural inclinations, and tendencies) into words

(Duckworth, 1987 as cited in Rajendran, 2001). This belief was further supported when Piaget (1963) argued that young children learn to talk through their own initiative and curiosity, without formal instruction if they are immersed in language-rich development.

Unlike Piaget, there are a number of other psychologists who viewed that thinking processes should be developed as the language labels of a concept are presented. Vygotsky (1978 as cited in Rajendran 2001) being one of the leaders in this area argued that through the use of specific words and language patterns, thinking is shaped. This is because, students will translate ideas, feelings and experiences using specific words and sentence structures to ensure that what they are thinking is well delivered and understood by the audience. At the same time, the accuracy and specificity of this translation will be determined by the depth and precision of thinking. In other words, the clarity of the translation or the description of their thoughts will reflect the depth of their thinking over certain matters.

In view of the above, I can conclude that language helps to shape thinking. According to Rajendran (2001), through reading, writing, speaking and listening, transitory thoughts can be transformed. He further added that this transformation occurs because single ideas enter the mind as cognitive entries, capable of bonding with collective categories of former thought. Thus, to help the students to develop higher-order thinking skills abilities, teachers should go beyond mere

teaching of four language skills. More efforts have to be done in order to ensure that the strategies and techniques used in teaching language really challenge the students to think deeply before any conclusion is formed.

Writing as one of the components of language skills is seen as the most taxing cognitive acts because it maximizes the load of information that must be maintained in working memory ring its execution. According to Dixon (2005), writing is a vehicle through which students can readily express their critical thinking. Dixon found in her study that critical thinking among students increased after they had been trained to use strategy based on the Hegelian Dialectic which asked students to determine a thesis, counter with antithesis and consider both sides in determining synthesis. Furthermore, there is a process of questioning which one engages in when writing, particularly the kind of substantive writing done in the academic context which requires a constant active dialogue on the part of the writer as a way of bridging important ideas into his or her thinking (Shahizan, 2007).

Literature is another language arts component which helps to trigger critical and creative thinking skills. As such, in 1999 the Ministry of Education in Malaysia announced a significant move by incorporating literature component into English language syllabus for all secondary schools. This move was made based on various reasons that have been taken into consideration for the benefits of the learners at large. Apart from improving students' proficiency in English

language, the learners would also be able to explore and analyze the texts critically and creatively so that the learning would be more meaningful. After all, learning literature is about moving beyond the texts by analyzing the values that are implicitly laid. Aslı Özlem (2003) added that reading literary texts will encourage the learners to think and try to visualize the characteristics of the characters and the setting in which the texts were written and presented to them. This process would lead the learners to think critically and creatively so that they would be able to draw conclusion from the texts they studied.

Looking at the efforts taken by the Ministry of Education, I may say that a great deal has been done to promote the teaching of higher-order thinking skills in Malaysian classrooms. However, does it really happen as what it is supposed to be? To answer the question, I have searched and studied various studies and articles to give me a clearer picture on this. Of course, I personally never deny the importance of higher-order thinking skills. I myself strongly agree with the steps taken by the government in emphasizing the teaching of critical and creative thinking skills to the students as it would help them to be a life-long learner and it would decrease the dependency on teachers in transmitting new information and knowledge. Furthermore, the students would also gain more autonomy in determining their learning journey. On contrary, numerous complains from the teachers in Malaysia have been expressed relating to excessive workload, students' inability to think on their own, students' low proficiency in English

Language, heavy teaching syllabus and lack of time. All these challenges might affect the teachers' perceptions and practice in their classrooms.

The major focus in this discussion falls on teachers and their role in teaching of thinking skills in English Language classroom. This is because evidence indicates that the teachers' attitude have a notable influence on their professional practices (Ambigapathy, 2004). One of the strongest influences on the way teachers (and student teachers) plan lessons is their set of beliefs about teaching (Richards & Killen, 1996 as cited in Killen, 2007). According to Brody (1998 as cited in Hadjioannou, 2007), teachers' beliefs may have the greatest impact on what teachers do in the classroom, the ways they conceptualize their instruction, and learn from experience. A study on teaching methods in English reveals that although teachers were exposed to various teaching methods at teaching training college and at the universities, the teachers resorted to the traditional methods that were used on them when they were students in schools (Ambigapathy, 2000). Teachers have to bear in mind that teaching should not be a one-way communication process because traditional method which is more of 'chalk and talk' rarely helps students to develop deep understanding of significant knowledge. Ideally, there should be a sustained interchange or dialogue between the teacher and learners (and among the learners) about the important concepts and ideas they are encountering (Killen, 2007). This kind of approach is actually withholding the students' knowledge. Nunan (1989) asserts that traditional approach to language teaching have tended to separate consideration of syllable

design with methodology. Carr (1990) claimed critical thinking skills should be taught with content integration and teaching those skills outside of content leads to a fragmentation of other skills such as the four basic language skills. English Language learners need to receive instruction that integrates literacy and critical thinking skills (Yu Ren Dong, 2006). By encouraging English language learners to compare, question, discuss, validate, and reflect on their own and others' ideas, teachers are able to promote higher-order thinking skills and at the same time, create active readers and writers.

It is the contention of many researchers that a major source of failure in teaching thinking could be the teaching style. Based on this contention, Sternberg and Martin (1988 as cited in Rajendran, 2001) considered three different styles in which teaching can take place in classrooms. The first style is a lecture-based or didactic style. The second style is a fact-based questioning approach and the third style is a thinking-based questioning approach, or what might be termed a dialogical approach. From their observations, they concluded that it is relatively little of the teaching that goes on in the classroom directly encourages higher-order thinking when they indicated that "the greatest proportion of teaching takes place in Style 1, and most of the remainder of the teaching is in Style 2".

Another issue that may influence the teachers' choice of action in their respective classroom is over-emphasized on the examination. It is widely accepted in this region that the academic achievement is the main yardstick used

in determining a person's success. In Malaysia, for example, we can see that over times, the media has been reporting persons' success by highlighting how many A's that a particular person managed to score. Various measures have been taken by the schools to improve students' academic excellence including providing tuition for the students as well as drilling and coaching them for the examination. Little has been done to improve students' thinking ability even though it is clearly stated in the revised curriculum for both primary and secondary schools. In fact, the teachers' performances are being assessed on the ability of respective teachers in producing high academic achievers. This situation has made the teachers see their responsibility is more on preparing the students to perform well in the examination and to increase the percentage of passes in their schools. Thus, they are left with no choice but to revert to the traditional way of teaching whereby the teachers would be the sole information dispenser. The teachers feel responsible to provide all the details to the students, becoming too engrossed, forgetting that they have a role to create conditions under which learning can best take place (Robiah Sidin, 1991).

Thus, it can be concluded that the onus is on the teachers to implement the curriculum change. However, as I said earlier, the question that may arise is whether or not these changes are really translated into classroom practice? Have the teachers in our schools shifted from being the sole information giver to the facilitator who provides scaffolding for the students to think and discover new knowledge? In order to facilitate higher-order thinking skills in students, teachers

must create an environment in which the students feel free to share their ideas, inventions and personal meanings. In addition, the teachers themselves would have to read widely, be resource persons and models of learning. Good teaching is no longer about helping students to accumulate knowledge that is passed on to them by the teacher; it is about helping students to make sense of new information (no matter what its source), to integrate new information with their existing ideas and to apply their new understandings in meaningful and relevant ways (Killen, 2007). Killen further suggested that the teachers must deliberately teach in ways that will enable and encourage students to engage in the intellectual activities that promote quality learning.

Barrel (1991 quoted in Rajendran, 2001) identified at least three aspects which could make classrooms inviting for thoughtful participation. First, are belief in one's ability to think and solve problems, the development of an internal locus of control, and the resultant disposition to persist. Second, is openness to other person's ideas, listening, and cooperation. Finally, an absolute essential element for the creation of an invitational environment – is control shared between students and teacher. Thus, it can be said that teachers in pursuit of teaching higher-order thinking skills should create a very supportive and non-threatening environment in which the students would feel free and comfortable to express and share their opinions. In the meantime, the teachers should also prepare themselves to accept and value students' point of views as Klemm & Snell (1996) said that good teachers never underestimate the difficulty that

students have in learning how to comprehend, evaluate, question, debate, integrate and synthesize information.

After reading a number of earlier studies on this area, I found that there quite a number of researches conducted in relation to higher-order thinking skills. For example, John Arul Philip (1992) researched on 'Memperkembangkan Daya Pemikiran Pelajar Melalui Mata Pelajaran KBSM (Developing Students' Thinking Skills Through KBSM Subjects) in which suggestions were made towards implementing P.A.D.I. Program (Peningkatan dan Daya Asuhan Intelek), a thinking program to facilitate teachers to develop students' thinking skills. Rajendran (1998, 2001, 2002) has conducted a few researches covering a few issues in relation to the teaching of higher order thinking skills such as transforming teaching practice to facilitate mindful learning, teachers' dilemma in implementing higher-order thinking skills, the acquisition of thinking skills in language classrooms as well as enhancement of higher-order thinking skills and language teaching. On top of that Nurliza (2002) researched on thinking skills as a motivational factor in ELT in which she found out that 'thinking' lessons are carried out in the classrooms and the focus is more on the teaching strategy or techniques rather than the content. However, Nurliza (2002) focused more on primary schools in which the context is slightly different with the current problem. Of all the researchers that I have studied, none of them is based on case study which probes deeper into situation so that a vivid depiction of the actual scenario could be captured.

The review of related literature has helped to guide my study through which I could see the area or areas that need further investigation particularly issues relating to the implementation of the current curriculum focus. Furthermore, it also provides me with guidelines to data collection as well as identifying themes necessary for the accomplishment of research questions. This is because by getting a clearer view on what constitute higher order thinking skills, I will be able to look for the patterns of teachers' classroom practices which support or do not support curriculum requirement that is promoting students to think critically and creatively.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

In this chapter, I will discuss about the research design employed in carrying out this study and the reasons for making such a choice. Besides that, this chapter will also provide descriptions involving various aspect of methodology such as the data collection methods, data collection procedures and data analysis. As such, the development and progression of the methodology used in this study can be visibly pictured. The discussion about the ethical considerations in carrying out this study will also be presented in such a way so that the credibility and dependability of the research findings could be enhanced.

3.2 Research Design

This study was one of case study whereby I studied teachers' perceptions, attitudes, knowledge and classroom practice in Sekolah Menengah Kebangsaan Pokok Pinang (not the school's real name), one of the schools situated in the northern district of Peninsular Malaysia. As mentioned in the earlier part of this study, it was aimed at investigating teachers' knowledge of critical thinking skills, their attitudes as well as the challenges and problems faced in teaching those skills in ESL classrooms. Thus, to answer all of these aims, I did not see any other

way which is more appropriate rather than conducting it qualitatively. It is well accepted that qualitative study is based on naturalistic-phenomenological philosophy that views reality as multilayered, interactive, and a shared social experience interpreted by individuals. (McMillan & Schumacher , 1993). Thus, qualitative research is concerned with understanding the social phenomenon from the participants' perspective which includes their feelings, beliefs, ideas, thoughts and actions.

Going back to the case at hand, I am of the opinion that it was inevitable for me except to involve in long-term engagement with the ESL teachers in Sekolah Menengah Kebangsaan Pokok Pinang (not its real name) whereby I had carried out qualitative case study in order to grasp a deep understanding over the teachers knowledge of teaching thinking skills, their awareness of the ESL curriculum requirements as well as their actual practices in the classrooms. Furthermore, the notion of higher-order thinking skills is very wide and it is almost impossible for me to have everything being included in the questionnaires for the participants to respond to. Besides that, investigating the teachers' understanding over the issue is not merely having them giving the definition of what thinking skills really are. However, the understanding can also be measured by examining their classroom practices which can only be assessed through close observation of the participants in their natural setting.

3.3 Setting

The school chosen was Sekolah Menengah Kebangsaan Pokok Pinang (not the school's real name), one of the well-known schools in the northern district of Peninsular Malaysia. At the time the study was conducted, the total enrolment of the school is 1,088 students with 73 teachers and 25 support staffs. This school was a non-residential one-session school located in rural area. At the time this study was conducted, this school's session normally end between 2.00 p.m. to 3.30 p.m. depending on the classes. Regardless of the facts that the school was one of the rural area schools, it has been showing quite a remarkable achievement in all public examination results. On top of that, the school was also famous in its co-curricular achievement as the students were able to represent the state at national level in a several competitions. Thus, the school has been acknowledged as one of the good schools in the district.

Physically, this school is housed in similar building as most of Malaysian's schools do. Generally, the classrooms comfortably seated the students in each class, even though, some of the classrooms are quite congested with 35 to 40 students per class especially classes for lower forms (form 1, 2, and 3) students. Most of the classes are nicely decorated by the students themselves as it has been the practice of SMKPP to have inter-class cleanliness competition which is carried out on weekly basis. On top of that, the school was also equipped with science and computer laboratory. Besides that, there are also LCD projectors

installed in several classrooms in conjunction with the EMS (teaching Mathematics and Science using English Language) program. Instead of having modern equipments, the schools library located on the second floor (the highest level) of the school building is quite undersized. There are many books available, but they are arranged in a way that looks unattractive. In addition, the condition inside the library is quite hot and stuffy as it is not well-ventilated. I have visited the library in a few occasions and I found out that the windows are always closed and the students have to rely on the ceiling fans available to make it a bit comfortable for them to work in there. It is essential for me have a clear picture of the school environment it has a significant impact in increasing students' motivation to learn. It is found in of the studies carried out by Pressley and his colleagues (2007) that the school environment has provided a supportive environment to support students learning the language art.

As stated earlier, this study seeks to scrutinize teachers' knowledge of thinking skills, their attitudes towards the teaching of the skills as well as to investigate the challenges and problems faced by the teachers in carrying out these changes. In other words, it has been designed in such a way to gain insight and in-depth understanding of a specific group over a phenomenon. As such, I do not intend to generalize the findings of this study. The sole purpose is only to explore the real situation that is happening in the ESL classrooms after the incorporation of thinking skills elements into English Language curriculum. Thus, I am of the opinion that selecting only one school for the purpose of this study

would be sufficient since the pressure to choose enough sites is only applicable if we wanted to ensure some generalizability of findings (Marshall & Rossman, 1993).

3.3.1 Access

For the purpose of this study, I opted to choose SMKPP due to various reasons. The first and most apparent reason is that of access. Choosing this school has given me the benefit of easy access as I am one of the English Language teachers here. Thus, I could expect good cooperation from the principal as well as the ESL teachers in conducting this study. Furthermore, time constraint is another important consideration that I have to give attention to. Since, I have known most of the ESL teachers in SMKPP as well as the students, I may not have to spend so much time to make them familiarize with my presence. Thus, it helped me a lot especially during the process of collecting data for the purpose of this study.

Even though knowing the principals and the teachers well has given me the advantage of getting access for this study, there is another facet in relation to the issue of access that is the availability of the teachers in school. At the time this study was conducted which was between January till April (the first half of the schooling semesters) whereby there were a number of co-curricular activities went on, such as, School's Sports Day, Inter-schools sports tournament, Language Carnival which consisted of a number of competitions involving both English

Language and Malay Language Panels and Anti-Drug Carnival which have taken up so much of teachers' time. In fact, all of the teachers under study involved in at least two of these activities which required them to leave their classes for a few days to prepare the students for the competitions. Besides that, during the first three months of the semester, the teachers were also busy with a number of meetings, planning for various programs to be carried out for the year. In addition, in the month of March, there was a nine days mid-semester break as well as First Achievement Test whereby there was no teaching and learning process has taken place. Thus, I found that it was quite difficult to conduct the observations and carry out the interviews with the teachers. I had to consult them almost everyday asking for their accessibility. On top of that, being one of the teachers there, I myself was also subjected to a number of duties to be performed. As such, I had to be very careful in planning my schedule so that sufficient amount of data could be collected. I had to maximize the use of every single opportunity available in order to enable me to gain in-depth understanding of what it is like to be in a particular situation, to catch the close-up reality and provide thick description of participants lived experiences of thoughts about and feelings for, a situation (Geertz, 1997 as cited in Cohen, Manion & Morrison, 2000).

Another obstacle in gaining access to the situation under study was the teacher's readiness. Even though, the participants involved in this study are my colleagues whereby there is a certain degree of rapport already established among us, I was still having a few problems during the initial stage of this study

especially in gaining their trust. This was because most of the teachers had a negative preconceived conception about classroom observation whereby they thought that most of the classroom observations were meant for evaluation purposes in which their performance would be assessed and graded. They also perceived observation as a way to find out their weaknesses. As such, they tend to excuse themselves from being observed by saying that they were not really prepared for the lesson. Therefore, I had to sit down and talk to them, convincing them that my sole intention was not to evaluate or criticize their teaching, but my intention was to study the patterns of their classroom practices in relation to the teaching of higher-order thinking skills. Thus, they did not have to specifically prepare the lesson just because I was going to observe them. All I wanted to see was their normal and natural classroom practices without giving special attention to my presence in the classroom. To gain their trust and make them comfortable with my presence, I visited their respective classrooms while they were teaching for a number of times before I actually closely observed them and collected data from those observations.

3.4 Participants

For the purpose of this study, the participants were selected through *purposeful sampling* that is selecting information-rich cases for study in-depth (Patton, 1990). These samples were chosen because they were likely to be knowledgeable and informative about the phenomena under study.

Basically, in SMKPP, there are 10 English Language teachers, 5 of them teaching upper forms and the other five teaching lower forms. Initially, as written in my proposal, I have chosen teacher A, teacher B and teacher C who had diversity of background and experiences. However, I was not able to study those teachers selected as teacher A was promoted and she is now part of the State Education Department, whereas teacher B transferred to another school and teacher C is no longer teaching English Language at the time this study was carried out.

As such, I have to once again decide on the teachers to be studied. After considering various factors such as their educational background (whether they are English option or non-option teachers), teaching experiences as well as their willingness to be involved in the study, I had chosen to study teacher X, teacher Y and teacher Z who were all English Language option teacher. At the time this study was carried out, teacher X is teaching lower forms (form 1 and 2) students. At the moment, she has been given five classes of both form one and form two of various levels. In other words, she has to teach students of various proficiency levels. Thus, she is able to offer valuable data for the accomplishment of the research objectives.

Teacher Y is an English Language teacher teaching form three and form four students. She had about ten years teaching experience. Her experience in

teaching English Language to various levels of students especially her experience in teaching exam classes has helped me to gain a deeper understanding of the implication of teaching higher-order thinking skills to the students as experience sometimes does matter as regard to classroom practice. The number of years the teachers have been teaching has had significant influence on teachers' perceptions of their knowledge, and pedagogical skills to teach Malay Language or English Language and higher-order thinking skills (Rajendran, 2001).

Teacher Z was the head of English Language Panel who has passion towards drama and has been the individual responsible for the formation of English drama team in this school. In the meantime, she is also a teacher with broad experience as she has been teaching for almost 15 years. Her experiences in teaching English Language throughout the years has enabled her to give descriptions of the changes in the focus of teaching and learning imposed with reformations and revisions of English Language curriculum and how did these changes affect her beliefs, attitudes as well as classroom practices. At present, she is teaching form four and five students.

All the three teachers were chosen because the diversity of their background as well as in their focus of teaching their respective classes had provided me with a wide range of data in which an in-depth understanding over the real situation was obtained. Studying these teachers had also enabled me to

identify their actual problems and challenges in implementing the teaching of thinking skills in ESL classroom.

3.5 Methods of Data Collection

In case studies, no one qualitative method is used (Lodico et. al, 2006). Usually, in conducting case study, a researcher employs multiple techniques which include interviews, observations and even documents or artifacts analysis. This is because a single method may not be able to address different research questions.

For the purpose of this study, two primary data collection methods were used, namely, semi-structured interview and classroom observation. Document analysis would also be used to check on the consistency between the teachers' classroom practices with the curriculum requirements and to examine whether or not the types of exercises given reflect their practices.

3.5.1 Observation

Observation methods are useful to researchers in a variety of ways. It provides researchers with way to check for non-verbal expression of feelings, determine who interacts with whom, grasp how participants communicate with each other, and check for how much time is spent on various activities (Schmuck,

1997). Thus, for the purpose of this study, it was pertinent for me to conduct observation so that I would be able to test out against participants' subjective reporting (data from the interviews) of what they believe and do. Thus, I would be able to obtain a clear understanding of the phenomenon being studied.

Another apparent reason for choosing observation as one of the data collection method is that, I could see the recurrent patterns of teachers' classrooms' practices. By examining these patterns, the answers for the research questions especially questions no. 2, 3 and 4 could be obtained. Even though, it would not be the sole source of answers for the questions, it provided a significant data to accomplish the research objectives.

To gain an in-depth understanding of the practice of teaching thinking skills in English Language classroom, I had conducted non-participant observation whereby I kept myself aloof throughout the sessions. While collecting data through observation, I did not specifically list out any special features that I was going to focus on. The observation was kept open whereby I described every single details captured from the site which was later on transferred into field notes. In such a case, adopting suggestion given by Lofland (1971 as cited in Delamont, 2002), I recorded the notes as quickly as possible after observation since the quantity of information forgotten is very slight over a short period of time but accelerates quickly as more time passes. As I was writing the field notes, I tried to provide as rich description as possible so that the actual situations could

be clearly depicted. In writing the field notes, I had also used two-column approach whereby one column was to write the verbatim report of the interaction and the other column to write my own thoughts about the interaction that has taken place. These notes helped me in at least two ways: to write my thoughts about in context; and also not losing any of the important reactions that I had on the happenings (Rajendran, 2003).

As a researcher, I am determined to be sensitive to any aspects that had taken place in the classroom which may affect the teachers' attempt in teaching or infusing higher-order thinking skills to the students. As such, the teachers' conduct as well as the students' reactions or responses throughout the lessons were closely observed. During the observations, I also gave special attention to the teachers' behaviours that might encourage the students to be actively involved in thinking activities such as the types of questions asked and types of task given to the students.

Initially, as written in my research proposal, I did not specifically state the number of observations that I was going to carry out. It all depended on the ability of the data collected to satisfy each and every research question. However, due to time constraint whereby I had to complete my research within four months and other limitations such as the availability of the teachers involved, I had to limit the volume of the observation to nine times only. Thus, each teacher was observed in their classrooms for three times. Even though the number of observations carried

out was relatively small, I was able to study the recurrent practices of those teachers in their respective classrooms. Furthermore, it was not the volume of data collected that mattered, but the strength of each data collected that determine its value to the research findings because significance rather than frequency is a hallmark of case studies, offering the researcher an insight into the real dynamics of situations and people (Cohen, Manion & Morisson, 2000).

To intensify the credibility of the research finding, I had also observed the teachers outside of the classrooms which I would later discuss because the duty of a teacher does not end the moment the class session is completed. The same scenario is applied to the learning process itself which does not necessarily occur within the four walls of a classroom. As a teacher, he or she is still subjected to many other obligations outside the classroom context to facilitate the students learning including preparing teaching materials as well as making themselves available for consultation. Apart from that, teachers are also obliged to plan various academic and non-academic (co-curricular) programmes and activities as prescribed in the school's yearly plan. Most of the time, teachers are also obliged to carry out administrative works as being delegated to them by the school's authorities. Thus, I viewed that it was essential for me to observe the teachers even when they were not within the classroom context as I might have been able to explore various aspects that may contribute to their attitudes in classrooms. For example, being burdened with a number of clerical and administrative tasks may affect the teachers' motivation in varying their teaching strategies (Tan, 2006)

In the context of observing the teachers outside of the classrooms, being one of them has given me an advantage because I was able to immerse myself within the teachers' community specifically, the English Language teachers' community without having worried of them not acting naturally with my presence. In fact, being one of the English Language teachers has given me more opportunities to interact with them in a more natural manner and there were quite a number of times that I had to work with them in carrying out school programmes including programmes for English Language such as preparing students for English Language Parliamentary Debate and English Drama. Thus, I was able to observe them in a natural context which is one of the important features of a qualitative research that is to carry out the study in a naturalistic setting (Lodico et al, 2006).

In conclusion, through observation, I could learn about teachers' behaviours and the meanings attached to those behaviours. Furthermore, data collected via observation was later used to triangulate with the information obtained from the interviews to check on the consistency between their responses given and their attitudes in the classrooms. On top of that, observation also allowed me to scrutinize the naturally occurring behaviours of the teachers. This is because an individual's behaviours was greatly influenced by the context in which it occurs. Thus, as mentioned earlier, there was no better way to gain an in-depth understanding over the teachers' behaviours except studying them in their

natural setting. As such, by conducting observations, the behaviours were recorded as they occurred naturally in their normal setting.

3.5.2 Interview

Interview is often described as a conversation with purpose (Kahn & Cannell, 1957). Generally, qualitative in-depth interviews are much more like conversations than formal, structured interviews (Marshall & Rossman, 1993). For the purpose of this study, I had used an in-depth interview because it provided higher response rate especially for topics that concern personal qualities or feelings. This was because, during the interview session, the participants have more freedom to express themselves using their own words as opposed to the questionnaires which are more rigid and limited. As mentioned earlier, I wanted to gain in-depth understanding about the implementation the teaching of thinking skills in ESL classrooms, interview may provide me with more valuable data in exploring the insight of the teachers because it allows for immediate follow-up question and if necessary for clarification, follow-up interviews may be scheduled at a later date. In addition, the issue of thinking skills is very wide as it involves multi thinking processes. The complexity of the issue that I was trying to comprehend did not allow me to obtain the data needed through questionnaires. The interviewees or the participants in such a case had opportunities to openly talk about what they perceived in a more meaningful way.

For the purpose of collecting data for this study, I have decided to use semi-structured interview and unstructured interview which rely on the ebb and flow of conversation (Mackenzie, et. al, 1997) whereby almost all of the questions used were open-ended questions. Using the semi-structured and unstructured interviews also allowed me to probe the participants further to keep the conversation going and to motivate them to discuss their thoughts, feelings and experiences relating to the questions under study. Using open-ended questions while carrying out the interview on the other hand are more flexible as they allow the interviewer to probe so that she may go into more depth if she chooses, or to clear up any misunderstandings; they enable the interviewer to test the limits of the respondent's knowledge; they encourage co-operation and help establish rapport; and they allow the interviewer to make truer assessment of what the really believes (Cohen, Manion & Morrison, 2000). In my opinion, this way of conducting interview is more natural as opposed to the structured one. Furthermore, in this kind of situation, I was of the opinion that the responses given by the participants were more natural as they did not feel that they were responsible to say something that would please me as the researcher. What I would like to ensure here was that they response to the questions in such a way that they were having casual conversation with their friends. Thus a more genuine and frank opinion could be obtained through which I could gain their insight over the phenomena under study. Furthermore, I had always bear in mind that it is pertinent for an interviewer to establish an appropriate atmosphere such that the

participant can feel secure to talk freely. Thus, it could increase the credibility of the data obtained.

As discussed earlier, time constraint was one of the obstacles that needed to be given proper attention. Thus, to save time, I decided to use focus group as I was able to interview all the three teachers under study at one go. There was two interview sessions conducted with the participants in this study even though I did not specifically mention about this in my proposal. The first session of the interview was conducted orally whereby the information obtained from the participants was immediately written down during the session itself so that I could catch as much data as possible (Marshall & Rossman, 1993). However, it had to be done with proper care so that the participants would not feel threatened. During the first interview, I had constructed 6 questions which were derived from the research questions. The questions were:

- i) How do you define-higher order thinking skills?
- ii) Do you believe in teaching higher-order thinking skills to your students?
- iii) What is your opinion about English Language Curriculum Specification? Is it helpful as a guide for the teaching of higher-order thinking skills to the students?
- iv) Have you attended any course on teaching higher-order thinking skills?

- v) What are among the methods or approaches that you use to teach higher-order thinking skills?
- vi) What are among the problems and challenges faced in teaching higher-order thinking skills?

After the first interview, I had read and briefly analyzed the responses given by the participants and I found out that there was still a need for me to conduct further interview by refining the questions and be more specific towards finding out data necessary to accomplish the research objectives.

For the second interview which was conducted somewhere in March, I was not able to do it orally as all the participants involved in this study were very busy with co-curricular activities and I could hardly find suitable time to sit down and talk with them without distractions. After a few attempts, I discovered that the participants seemed quite uncomfortable as they had too many things to be done at one time. As such, I decided to get them answer the interview questions in written whereby they were able to take them home and have more ample time to think and answer the questions comfortably. After consulting all of the participants, Teacher X and Z preferred to answer the questions in written as they could not find suitable time for the interview. However, Teacher Y insisted to proceed with oral interview as she said that she would be able to provide better response using this method. Thus, I had the questions intended to be posted to the participants printed and distributed to Teacher X and Z, and preceded to interview

teacher Y at the time convenient to her. As for the second session, there were another 16 questions which sought to further penetrate into the participants' thought concerning their beliefs and attitudes towards the teaching of higher-order thinking skills and some of the questions sought for clarification of the responses given in the first session of the interview. The questions were:

- i) What is your opinion about the students' leaning styles?
- ii) Do you think the students are able to construct new knowledge based on certain concepts presented or explained to them? Why?
- iii) Do you think the students are ready to immerse themselves in thinking environment? Why?
- iv) How do you think higher-order thinking skills help students in their learning?
- v) In your opinion, what are the factors that refrain students from engaging in thinking activities?
- vi) What is your expected outcome that the students should be able to achieve at the end of every lesson?
- vii) How would you rate your knowledge and understanding in relation to the subject content?
- viii) How would you rate your knowledge and understanding in relation to the teaching of higher-order thinking skills?
- ix) What is your main concern in planning certain lesson?
- x) Which teaching approach that suits you most? Student-centred or teacher-centred? Why?

- xi) What do you normally do to facilitate students' thinking?
- xii) How many percents of your time at school are allocated for the preparation of your lessons?
- xiii) How do the activities other than teaching activities affect you especially in preparing for the lessons?
- xiv) Do you think teachers are equipped with sufficient materials to implement the teaching of higher-order thinking skills?
- xv) Do you think our examination's requirements agree with the teaching of higher-order thinking skills?
- xvi) How do the examinations affect your teaching style especially in choosing teaching strategies?

All of the responses obtained from the respondents were later on transferred into interview schedule for analysis purposes.

Even though, data obtained from the interview provided me with first hand information about the participants' beliefs towards the teaching of higher-order thinking skills, but relying on their descriptions of the classroom practices would not be sufficient to capture the real picture of the phenomenon under study. Thus, the data collected from the interview could not stand on its own. The data obtained was further triangulated with the data collected through observation and document analysis. This is because, interview only provide a recount from the

teachers themselves which may not be the real case. Thus, by observing their classroom practices, a clearer picture of the actual scenario could be visualized.

3.5.3 Document Analysis

Document analysis was also used to give a clearer picture about the current practice of ESL teachers as regards to the teaching of critical thinking skills. Among the documents that may be analyzed were:

- i) the curriculum specifications;
- ii) the textbooks;
- iii) the examination questions;
- iv) the worksheet; and
- v) the exercise books.

The curriculum specifications in this study gave an overview of the ESL curriculum requirements concerning the teaching of thinking skills in the ESL classroom. It was essential to get hold of the basic understanding of the curriculum itself. Furthermore, by analyzing the curriculum specification also served as a guideline in investigating teachers' knowledge on thinking skills and the needs of teaching those skills in their respective classrooms.

By studying the textbook, on the other hand, helped me to further understand the ESL curriculum requirements as what has been translated into the

textbook must come from the curriculum itself. On top of that, textbooks should be the core reference used by both teachers and the students.

Besides that, the examination questions, classroom exercises as well as worksheet given to the students would actually reflect the teachers' beliefs and attitudes towards the teaching of thinking skills to the students. This is because, what they had chosen to be used in the classroom were the materials that they believed were able to improve students' learning. Furthermore, by analyzing these documents, I could see whether or not the exercises given really challenge the students' ability to think and further enhance their thinking ability.

3.6 The Role of Researcher

In this study, I took the role as a participant observer and non-participant observer depending very much on what I really wanted to seek throughout the study. This is because, in the case of complete observer, there is a danger of failing to understand the perspective of the participants (Rajendran, 2003). Hammersley & Atkinson (1995) suggest that where this strategy is used alone, these perspectives have to be inferred from what can be observed plus the researcher's background knowledge, without any possibility of checking these interpretations against what participants say in response to questions.

In the case of classroom observation, I took the role as a non-participant observation in which my only concern was observing the real phenomena about the case at hand without interfering with the daily classroom activities. This is because I just wanted to understand the actual scenario about the teachers' attitude in their respective classroom.

On the other hand, for the rest of the study I took the role of a participant observer in which I established a close contact with the ESL teachers particularly without giving exception to the school community at large. This is because I want to get true sense of reality, as it is perceived by the participants (Lodico et. al, 2006). Furthermore, being one of the English Language teachers in the school has given me an opportunity to actively immersion with the teachers' daily activities in school, through which I was able to establish the insiders' point of view which is very important to enable me to perceive the situations as what has been perceived by the participants themselves. In such a case, the personal bias can be avoided and thus increase the credibility of the study. Nevertheless, I have to bear in mind about the issue of going native. In this situation, I could avoid from going native as I am still a new teacher in this school whereby at the moment this study was carried out, I have been teaching there for merely one year. Even though, I have established a certain degree of rapport with most of the teachers, there were a lot more than I do not understand about the school. Thus, I have the advantage of adopting stranger's point of views while observing the teachers.

3.7 Ethical Considerations

Before the study was conducted, a proper permission from the school's principal as well as the State Education Department and District Education Department (if necessary) were obtained. This was to ensure that there would be no problem with regards to the publication of any part of the study. Besides that, the teachers involved as the participants were informed about my intention of the study. This was closely related to the issue of ethics.

As far as ethical issue is concerned, in qualitative study, it is pertinent to address this matter with care because it involves mutual trust between the researcher and the participants. Thus, the researcher should in any way try to avoid manipulation and deception (McMillan & Schumacher, 1993). In this study, as a researcher, I needed to assure each and every participant of the confidentiality and anonymity as well as describing the intended use of the data. This was why in this study, I did not reveal the school's actual name and the identity of the participants. This was to ensure confidentiality and privacy. Besides that, I had also ensured that all the participants were well-informed about the purpose of the study and how the data was being collected and recorded so that that they could properly give their consent.

3.8 Pilot Study

Unlike the quantitative study, pilot study in this study was not conducted to test the validity and reliability of each test item. The pilot study in this case was conducted to refine the interview questions and also for the purpose of selecting participants who could be the key informants for the study. For the purpose of the pilot study, I have asked a few foreshadowed questions to be asked to the teachers. By doing this, I will be able to see whether or not the questions asked lead me to the information essential to the study.

3.9 Data Collection Procedures

Basically, I had only four months to conduct this study that was from January to April 2009. Thus, within this very limited time, I really had to carefully plan the process of collecting data. As I mentioned earlier, there were two primary sources of data collection that I may use in this study namely interview and observation. Due to time constraint, both interview and observation were conducted simultaneously. At the initial stage of this study, there was no specific number of times fixed to carry out the interview or the observation. It solely depended on the necessity of this study. However, I still had to ensure that the observation and the interview were sufficiently conducted so that I would be able to study the recurrent patterns of participants' classroom practices as well as gaining insight and comprehensive understanding of the situations under study.

The document analysis was carried out towards the end of this study that was after the interview and the observation were conducted. This analysis was conducted as a cross-reference to the data obtained earlier as it would provide further clarification of each participants' beliefs and practices.

3.10 Data Analysis

In qualitative research, there is no set of standard of procedures for data analysis and for keeping track of analytical strategies. However, in most cases inductive analysis is used and the same goes for this study. In this case, the analysis of the data collected was begun as soon as the first set of data was gathered. The data gathered was segmented into relevant parts according to certain categories based on its content derived from the data itself. However, in some cases, the categories can also be derived from the research questions or researcher's personal knowledge, exist before the analysis begins (McMillan & Schumacher, 1993). In other words, the data collected was further categorized into its respective themes. In this study, the themes were derived from the literature review, the data itself and my personal knowledge in the field of higher-order thinking skills as well as the research questions. The themes were:

- i) Teachers' knowledge about higher-order thinking skills.

- ii) Teachers' beliefs and attitude towards the teaching of higher-order thinking skills.
- iii) Teachers' classroom practices.
- iv) Factors that refrain teachers from teaching higher-order thinking skills.

Thus, by studying and analyzing the teachers' conducts under the above themes, I was able to see whether there is any explicit attempts made to promote higher-order thinking skills among the students in English Language classroom.

In analyzing the data, the technique of comparing and contrasting was used. In such a case, the data will be compared with one and another to identify any omission of information essential to the study. However, the most important goal in the process of comparing and contrasting was to identify the similarities and distinctions between categories to discover patterns. The whole process of data analysis is a complex cyclical process which took place from time to time throughout the research. In a nutshell, I may say that, the data analysis process in qualitative research is like completing jig-saw puzzle in which bits and pieces of each the data will be reviewed, refined and put together to form a holistic view of the whole phenomena. Thus, a great care must be exercised in order to enhance the credibility and dependability of the research findings.

Subsequently, all the data compiled from each of the three teachers was reviewed to look for evidence of the existence of features that indicated perceptions towards the teaching of higher-order thinking skills and infusion of those skills in the teaching and learning activities. Firstly, I tried to find out about how the teachers perceived teaching higher-order thinking skills in English Language classrooms. Then, I tried to look for the connections between what they said during the interviews and the practices in their respective classrooms. In the meantime, from the data obtained, I also tried to deduce factors that encourage or refrain them from infusing higher-order thinking skills in their classroom practices. On top of that, cross-case analysis among the teachers was also made in which I compared the three teachers' classroom practices and their preconceived beliefs as regard to the teaching of higher-order thinking skills. However, in analyzing the restraining factors, I reviewed and analyzed the data as a whole whereby the limitation and problems faced by the teachers would be simultaneously analyzed and discussed in the later part of this study.

As it has been noted, there were three sources of data in this study, namely, classroom observation, teacher interviews and document analysis. Thus, I was able to conduct cross-reference between the different sources of data, so that I could grasp the depth and breadth of the situation under study.

3.11 Credibility and dependability

In qualitative research, there is no specific method used to ensure validity and reliability as in quantitative research. However credibility which is equivalent to validity in quantitative research can be obtained by making sure that the participants' perceptions of the setting or events match up with the researchers' portrayal of them in the research report (Lodico et. al., 2006). As such, I had always tried to get the teachers under study to check the responses given during the interviews as well as the observation fieldnotes.

As for dependability which is equivalent to reliability in quantitative design, I have tried to provide as thick description as possible in relation to the processes and procedures involved during the data collection and analysis. On top of that, I also made my data available for review by the readers or other researchers.

3.12 Conclusion

As I mentioned earlier, this study was one of qualitative case study because it was seen as appropriate to explore the teachers' perceptions towards the teaching and learning thinking skills and to investigate as to what extent this change has been implemented in English Language classrooms. Thus, multiple methods of collecting data were used as stated above to study the depth and

breadth of the situation. Various measures were taken to ensure that the findings obtained were reliable and valid so that that it would be significant in determining the actual practices of the teachers as well as the factors influencing it. Furthermore, it was very crucial to carefully choose the methods of collecting data as well as cautiously analyze the data obtain in so that research questions could be appropriately answered.

CHAPTER FOUR

DATA ANALYSIS

4.1 Introduction

This chapter presents the findings on the implementation of the teaching of higher-order thinking skills in English Language classrooms. The study investigated teachers' knowledge, beliefs and attitude towards higher-order thinking skills and the implementation of thinking skills in the classroom. The findings of this study will be analyzed based on themes identified.

4.2 Teachers' Knowledge of Higher-Order Thinking Skills

For the purpose of finding out teachers' knowledge about higher-order thinking skills, teachers were requested to provide responses to a few interview questions which covered aspects such the knowledge about the skills and the pedagogical approaches used to infuse higher-order thinking skills.

4.2.1 Teacher X

Teacher X defined higher-order thinking skills as the ability of generating ideas as well as handling and solving problems (Appendix 1, 1st Interview, Q.1). During the interview, she stated that she has been using different approaches to teach thinking skills, such as group discussion, questioning, expressing one's opinion and incorporating tasks and questions which challenge students' ability to

think critically and creatively in the classroom exercises as well as examination questions. Apart from that, she also said that brainstorming is another technique used to facilitate students' thinking.

Even though she has the basic understanding and knowledge as regards to the teaching of higher-order thinking skills, she acknowledged that she was not really confident with her ability to teach those skills effectively to the students as compared to the teaching of the subject contents. This is because she received limited training pertaining to the pedagogical approaches appropriate to promote the acquisition of higher-order thinking skills by the students. As such, she was looking forward to attending any courses related to thinking skills to increase her knowledge on various teaching strategies to cater for the students of different needs.

4.2.2 Teacher Y

Teacher Y looked upon higher-order thinking skills as the skills involving reasoning, problem solving, the ability to think critically and to develop creative ideas. From the information gained during the interviews, Teacher Y admitted that she has never attended any courses in relation to the teaching of thinking skills except for the exposure given when she was in university. Even though, Teacher Y had received very little formal training as regard to the teaching of thinking skills, from the data collected, it showed that she had a certain degree of

understanding about the issue of higher-order thinking skills in the context of Malaysian classrooms whereby she indicated that:

...I do not teach language skills and thinking skills separately. I teach thinking skills through activities within the context. In other words, we don't really teach thinking skills but we use the context and activities to develop such skills.

(Appendix 6: 1st Interview, Q. 5)

Her response showed that she had knowledge about integrating thinking skills in delivering the content, in this case, English Language subject, which refers to infusion approach, the approach that should be used by Malaysian teachers in teaching higher-order thinking skills. Apart from that, as far as Teacher Y's knowledge about pedagogical approaches is concerned, she claimed that she has been using questioning technique, problem-solving and discussions in which she would get the students to elicit opinion to facilitate students' thinking. In fact, from the observations, it can be seen that she has been making explicit attempts to carry out thinking lessons in her classrooms which will be discussed thoroughly later.

Regardless of having quite a limited exposure as regard to the pedagogical approaches to be used in teaching thinking skills, she seemed to be very confident with her ability in bringing the teaching of higher-order thinking skills into her

classrooms. In fact, she did not really stress on the importance of having a substantial amount of knowledge about the skills. When she was asked on how she would rate her knowledge about higher-order thinking skills she said:

...the important thing is not how much I know. There are people who may have tons of knowledge about thinking skills but they may not know how to implement it effectively in their classrooms. Thus, what really matters is how I plan my lesson so that I can maximize students' involvement in the teaching and learning process. It is how I actually deliver so that the students are able to acquire higher-order thinking skills.

(Appendix 7: 2nd Interview, Q. 8)

Thus, Teacher Y was trying to explain that the most important factor is not depending on the volume of knowledge but the determination to use and manipulate it so that the execution of the teaching of those skills can be carried out. On top of that, she has taken the English Language Curriculum Specification as a good guide to develop students' thinking skills within their own pace.

4.2.3 Teacher Z

Teacher Z demonstrated her knowledge about higher-order thinking skill by defining it as someone who is able to analyze situations around him or her and is able to use what he or she has to her or his advantage (Appendix 11, 1st

Interview, Q. 1). Moreover, she went on citing critical and creative thinking skills as well as problem solving as parts of higher-order thinking skills. As for the teaching approaches that could be used to facilitate students' thinking, Teacher Z named a few of them:

- Ask questions (Questioning technique)
- Tell them to measure themselves in certain situation (being analytical).
- Ask the students to relate the subject-content with their own personal experience (being reflective).

In one of the interviews, she admitted that basically she has knowledge about what higher-order thinking skills really are. However, due to limited exposure, she said that she may have problems particularly in choosing instructional approaches suitable to promote thinking skills among the students. She asserted that she had never received any proper training as regards to the teaching of those skills. Throughout her teaching tenure of almost 15 years, she had only attended a course that related to the teaching of higher-order thinking skills only once. The course was on the revision of English Language Curriculum for form 4 and form 5 and it was conducted many years ago. As such, she has been relying on the English Language Curriculum Specification provided by the ministry in assisting her in executing the teaching of thinking skills to the students.

Besides that, she also contended that being quite a senior teacher, the teaching of higher-order thinking skills was not really stressed upon during the early years of her teaching. At that time, the approach used was more on the grammarian approach whereby the stress was given to the ability of using grammatically correct English which was more of teacher-centred and most of the times students were involved in drilling activities, reinforcing the concepts taught rather than getting the students to construct their own learning. Furthermore, Teacher Z stated that in most of her teaching experiences, she has worked with low-proficiency students who normally depended so much on teachers to structure and construct their learning. Thus, due to the above reasons, she perceived her knowledge in relation to the teaching of higher-order thinking skills as limited and insufficient.

4.3 Teachers' Beliefs and Attitudes towards the Teaching of Higher-Order Thinking Skills

To examine teachers' beliefs and attitudes towards the teaching of higher-order thinking skills, the teachers were requested to response to a number of interview questions. The questions were not only meant to investigate teachers' beliefs and attitude towards the relevance of teaching thinking skills to average and low proficiency L2 learners but also to scrutinize their beliefs and attitude pertaining to students' readiness to immerse themselves in thinking lessons. Thus,

by studying these beliefs and attitude, I would also be able to comprehend how they actually relate to the teachers' classroom practices.

4.3.1 Teacher X

Basically, teacher X has faith in the role of higher-order thinking skills in improving students' learning. She admitted that, with these skills, the students should be able to generate ideas, solve problems and be more creative and critical in their thinking. In other words, she believed that higher-order thinking skills could help students maximize their learning and understanding. However, regardless of the beauty of the skills, she made a clean breast by clearly indicating that higher-order thinking skills could only be taught depending on the situations. She believed that it was quite hard to teach higher-order thinking skills to the students of lower proficiency whom she sometimes termed as 'weak' or 'weaker' students because they generally refused to think and only hoped for straight answers from the teacher. However, it does not mean that she totally regards the teaching higher-order thinking skills to the low proficiency students as impossible. She was quite positive when she indicated that there was still room for the skills to be introduced to these students provided that proper guidance was given and thinking activities used must be suitable to their levels.

On the contrary, for students with higher proficiency, sometimes regarded as 'good' students, teacher X believed that higher-order thinking skills could be taught or infused through certain activities with thinking elements. She further

added that good students are more ready to explore the new knowledge and challenge their thinking abilities. With proper guidance, they should be able to think in a more structured and systematic manner. Thus, according to teacher X, teachers should bear in mind that proper guidance could lead to effective thinking. Due to this, Teacher X did not particularly state her preferences towards one instructional approach only. When asked which teaching approach that she preferred most, she indicated that it would depend on the situation such as the different abilities of the students. She further illustrated that her main concern in planning a lesson is information about her students' abilities. Such information would facilitate her in deciding certain strategies and techniques suitable for them so that the objectives proposed for each lesson could be achieved.

When she was observed in her classroom, the evidence showed that she had a positive attitude towards shifting her teaching practices from teacher-centred to students-centred. On one occasion (Appendix 3), teacher X started her classroom session by getting the students to talk about their favourite past time activities. Even though, the session did not require the students to exercise higher-order thinking skills, it appeared to have a positive impact as students felt free to talk and share their thoughts. All observation data indicated that teacher X has taken steps to maximize students' engagement in the teaching and learning processes whereby they were encouraged to experience and contribute towards maximizing their understanding over certain topics. For example, in one lesson, Teacher X instructed the students to construct sentences using different

punctuations and allowed their fellow classmates to analyze and correct mistakes (Appendix 4). In her teaching, teacher X was also seen to use various strategies and techniques such as classroom discussion, group work and group presentation to promote students' involvement in the activities rather than being passive recipients of the information presented by the teacher.

4.3.2 Teacher Y

Basically, Teacher Y believes that there is room for the implementation of the teaching of higher-order thinking skills in English Language classroom depending on what a teacher is focusing on. She argued that if a teacher intends to teach certain topic or wishes to concentrate on certain language focus, he or she can create a situation that would invite students to engage in thinking activities instead of straight away providing them with the answers or solutions to certain tasks given. In addition, she also believes that with higher-order thinking skills the students will be more mature in giving their responses. Taking literature as an example, she contended that through active thinking, the students should be able to understand more and reflect on the elements of literature works such as themes, characterization, plots, and settings in a “wiser” and “more” meaningful way (Appendix 7: 2nd Interview, Q. 4). Furthermore, they would also be able to relate the literature texts with their own personal experiences. In other words, through activities that encourage creative thinking, students would be able to connect new learning to the world beyond classroom, and thus students' learning and understanding could be maximized.

Like Teacher X, even though Teacher Y has shown quite a strong conviction towards the teaching of higher-order thinking skills, she admitted that it is not an easy task to execute the instructional approaches that promote the acquisition of thinking skills due to various reasons such as students' attitude who always hope to be spoon fed. On top of that, as far as English Language is concerned, Teacher Y also perceived that most of the students see understanding English means knowing the meaning of each and individual word in the passage as they cannot comprehend it as a whole. Thus, most of the times, they would be expecting translation from the teacher. However, regardless of difficulties that may arise, Teacher Y was showing positive attitude as she said that teachers should be ready to guide the students and model the thinking to them. She further added that initially, it may be hard as most of the students are not used to do the thinking on their own, but if we make it as a habit, the students will gradually develop their thinking ability.

Teacher Y also demonstrated her positive attitude towards promoting the acquisition of higher-order thinking skills when she indicated that regardless of whatever language skills that she was focusing on, she would always want her students to identify the reasons why they were learning certain subject contents. Teacher Y said that she preferred to use students-centred approach as opposed to teacher-centred as she reasoned that in learning English Language, students need to experience it and immerse themselves in English speaking environment rather

than passively listen to teachers' explanation. Teacher Y even quoted a saying "language is learned and not taught". In order to maximize students' involvement in the teaching and learning process and get them to contribute more for the benefit of their own understanding, Teacher Y claimed that she would vary her teaching strategies and techniques to suit her students' needs as she acknowledged that no one approach fits all needs. As such, she would closely observe students' attitude in the classrooms including their facial expression and gestures that signified their perceptions towards the topics discussed or the activities carried out in order to enable her to cater for the different learning preferences of each individual students. In fact, her main concern in planning a lesson was to deliver the right content in the right way suitable to her students. From the observations conducted also, I could see the variation in her teaching approaches in accordance with the students' level of proficiency. I shall return to this issue later in the chapter.

4.3.3 Teacher Z

Similarly to Teacher X and Teacher Y, Teacher Z believed that higher-order thinking skills are important skills to survive in this challenging era. She even viewed higher-order thinking skills as the skills that could help the students to progress in whatever they do. However, regardless of her conviction towards the importance of possessing these skills, she was still doubtful about the possibility of teaching it to the students. On most occasions, she repetitively expressed her belief that as far as the context of her school was concerned, there

was very little room for the execution of the teaching of higher-order thinking skills because she perceived that most of the students would generally refuse to think and would rely on the teachers to provide them with answers. Moreover, she even believed that most of the students were not ready to immerse themselves in thinking environment.

Researcher : Do you think the students are ready to immerse themselves in thinking environment? Why?

Teacher Z : No. They are not used to think on their own. I think this is due to the upbringing...Malays usually tell their children what to do.

(Appendix 12: 2nd Interview, Q. 3)

Being quite objective in stating her belief, Teacher Z was seen quite tolerant when it came to higher-proficiency students. She believed that the higher-proficiency students should be able to exercise their thinking skills in their learning. Low proficiency students could not. In fact, on one occasion she even perceived that some of the average students were not ready to exercise their higher-order thinking skills in their learning. During one of the interviews, she said:

However for weak students or even some of intermediate students, they cannot exercise their higher-order thinking skills because their concerns about language structures limit them from doing so.

(Appendix 11: 1st Interview, Q. 6)

From the responses given, I could say that Teacher Z never denied the importance of higher-order thinking skills in helping students to enhance their learning. In fact, she personally admitted that she preferred to use student-centred approach as she believed that students could achieve more and gain deeper understanding over the subject matter. However, she confined the possibility of teaching higher-order thinking abilities to the students of higher proficiency only, and totally disregarded its possibility in the case of students of lower proficiency.

Regardless of her belief in higher-order thinking skills and her preferred teaching methods, Teacher Z was showing relatively contrasting attitude. Her main concern in planning her lessons was the end product which was the ability of the students to produce correct and acceptable answers as opposed to the teaching of higher-order thinking skills which stresses more on the process.

Researcher : What do you expect the students should achieve at the end of every lesson?

Teacher Z : Students should be able to answer questions correctly.

Researcher : What is your main concern in planning certain lessons?

Teacher Z : Whether or not students are able to complete the work given.

Researcher : How do examinations affect your teaching style especially in teaching strategies?

Teacher Z : It affects me greatly as I need to teach in accordance with examination questions. On top of that, as a teacher I would want to ensure that I could maximize the number of passes in my school.

(Appendix 12: 2nd Interview, Q. 6, 9, 16)

Thus, from the responses given, it could be seen that Teacher Z had a strong inclination towards teaching students for examination. The data revealed instances showing her lessons focusing on the teacher and in most occasions she would be the transmitter of information rather than exploiting students' responses for the benefit of their own learning. For example, on one occasion, the observation revealed that Teacher Z simply gave the correct answer without trying to listen to students' responses.

Teacher Z : What does 'the content of the boat refers to'?

Ss : (Students responded in chorus. I could not really hear what they were saying).

Teacher Z : She repeated the question using L1. Apa maksud 'isi boat' (What does the phrase "content of the boat" refer to)?

Ss : (Again they responded in chorus. There was no certainty in the answers given).

Teacher Z : The phrase refers to the knowledge that si tenggang gained when he was abroad.

(Appendix 14)

The above example illustrates that Teacher Z did not try to understand what was said by the students. Instead, she furnished them with the expected answer.

4.4 Teachers' Classroom Practices

By investigating teachers' classroom practices, I expected to see whether there were efforts taken to teach and promote the acquisition of higher-order thinking skills by the students. Furthermore, investigation on teachers' choice of teaching approaches, strategies and techniques in their respective classrooms would provide a clear picture about whether the teachers were making attempts to emphasize thinking skills in their practices. In addition, studying their teaching practices would also offer a better outlook on whether the activities brought into

the classrooms have distinctive characteristics to facilitate students' questions and explorations so that higher-order thinking skills could be enhanced.

4.4.1 Teachers X

In the case of teacher X, I had observed her teaching in the same class throughout the data collection period. The class was the top form one class in the school consisting of 40 average to high proficiency students. Throughout all of her classroom sessions, teacher X was making explicit attempts to maximize students' involvement in classroom activities by getting them to discuss and present their answers orally as well as in written form. Generally, she would ensure that each of the students in the class was given opportunities to engross in any of the activities conducted. There was a considerable amount of time allocated by the teacher to do this. Thus, she was maximizing students' talking time instead of expecting them to passively receive the information and knowledge transmitted by the teacher. Besides that, teacher X was also observed to be creating a positive and supportive environment throughout her lessons. In each lesson, the students were encouraged to talk and she would provide positive remarks such as 'good', 'well done' and 'brilliant' every time the students gave a try which helped to establish positive learning environment (Appendix 3). The students, in the meantime, seemed very comfortable as they did not hesitate to approach and talk to the teachers whenever they needed assistance

From the classroom observations made in Teacher X's class, it could be seen that there were classroom discussions taking place in two of the class sessions in which students were given opportunities to talk about the issues at hand. In the first observation (Appendix 3) there was no classroom discussion took place. Instead, there was only a mere teacher and students talk about their hobbies. However, there was small group discussion towards the end of the lesson in which the students were required to discuss and prepare interview questions about their hobbies.

However, in the second and third observations, there were classroom discussions in which the students were called to brainstorm and list out different types of punctuations as well as their functions and to complete a poem by filling in the blanks (Appendix 4 and 5). In the earlier activity, the students would have to retrieve their previous knowledge about the topic and applied it to construct sentences correctly which showed an inclination towards constructivist approach. When the students were asked to correct the sentences constructed and presented by their fellow friends, they would have to be analytical, evaluating those sentences whether they were using punctuations correctly. Besides using classroom discussion, Teacher X also employed drilling technique. For example in one of the classroom activities, the students were required to answer in 'choral speaking' manner. In this activity, she allocated different lines for the boys and girls to which they integrated and took turn to recite those lines (Appendix 5).

This technique allowed students to immerse orally in using the language and not in thinking.

Besides using discussion involving the whole class, it was also conducted in the form of small group discussion through group work and pair work activities. Throughout the three observations conducted, teacher X was observed assigning different tasks to the students whereby they were instructed to work within their small groups to discuss and come up with answers for those tasks. The small group discussions were mainly used for finding out answers except during the first observation (Appendix 3) whereby the technique was employed for the students to discuss with their partners and to come up with interview questions to be used in the later stage of the lesson. In the other classroom sessions, the small group discussion was used to complete a poem and to punctuate the given text using correct punctuation.

Apart from classroom discussion and small group discussion, teacher X has also utilized writing activities in every lesson observed to enhance students' thinking. However, from the observations, the writing activities were not carried out in the form of writing an essay or a short composition. One of the most striking writing activities was when the students were instructed to write a poem 'I Need a Friend' in which they were allowed to use the given poem as a model. In this activity, most of the students were seen excited as they began to write almost immediately after the instruction. During the activity, most of the students

were also seen to actively discuss and exchange ideas in a very enthusiastic manner. Even though writing a poem may be a difficult task but by making the given poem as a model, the students were able to write a simple poem suitable with their level of proficiency. In another occasions, writing was also used as a teaching strategy whereby students were required to write five questions to interview their friends about their hobbies and later, rewrite the information gathered in the form of paragraphs, and to construct sentences using correct punctuation. The activity may look simple but through writing, students were able to express their comprehension of certain topics in their own words which leads to deeper understanding as it gave students practice at organizing isolated pieces of learning into a meaningful whole.

Instead of using various strategies and techniques in her teaching practice, teacher X had always taken up the role as a facilitator in the teaching and learning process. She would normally walk around the class to assist and check on students' progress. On most occasions, she was witnessed to be interacting with the students face to face which made the explanation well-delivered. Sometimes, she even modeled her thinking by providing examples and giving clues to the students so that their thinking would be more directed and guided. For example, during the first observation, teacher X modeled a few questions to facilitate the students to see how they can construct their questions (Appendix 3). She even assisted the students to use 'Wh' words to construct their questions. In other

words, she assisted the students to think on their own in completing the given task instead of straight away providing the students with the answers.

4.4.2 Teacher Y

Like teacher X, I observed teacher Y for three times in three different classes. Two of the classes were form four class and the other was form three class consisting of average to higher proficiency students. As she had mentioned in one of the interviews, I could see that Teacher Y really translated her belief into action. Throughout the observations, I could see that Teacher Y was trying to conduct ‘thinking’ lessons in which she employed various activities that allowed students to capitalize their engagement throughout the sessions and contribute to their own learning. Besides that, from the data available, it could be seen that Teacher Y was trying to create positive environment that would motivate students to achieve their full potential. There was a continuous interaction between teacher and students which has taken place in a secure and supportive environment. Teacher Y was seen smiling every time she talks to the students except in one occasion whereby she was quite upset with the students’ attitude as they came to class unprepared even though they had already been given a task to work on it beforehand (Appendix 8). Even though she seemed to be friendly with the students, she still maintained a good control over the classes. Once in a while, she would vocally take control of the class using a strong and instructive voice in order to make sure that the students’ attention was brought back to the topic at hand.

On most occasions, teacher's talk has taken place in the form of teacher's explaining, questioning and providing feedback to the students. In the second observation, Teacher Y began the class session by getting the students engaged in a classroom discussion in which they had to name a few of inventions that could be associated with the word 'TECHNOLOGY'. At this stage the students were seen coactively interacting with the teacher, naming the inventions that came across their mind. In the meantime, the data also showed that most of the students' interactions could be in the form of students providing responses, presenting the outcome of their group discussions to the class, students' questions and expressing their opinion.

From the observation conducted, there was evidence showing that Teacher Y used questioning technique to prompt students to think. However, the question that might arise is whether the questions asked are eliciting responses which grow out of students' higher-order thinking processes? During the first observation, Teacher Y employed questioning technique in asking the students to identify any omission that they could see from the role-play.

Teacher Y : Can all of you see what was really happening in
Chapter 4?

Ss : Yes! (sounded unenthusiastic)

Teacher Y : Was there something missing in the presentation?

Ss : (No response)

Teacher Y : There was one character missing in the presentation,
and what was the character?

Ss : The King (answered in chorus)

Teacher Y : Yes...the King! Group A, who was supposed to be
the King?

Ss : (No response. They started looking at each other as
if they have just realized that they overlooked that
part).

(Appendix 8)

During the second observation, there was also questioning technique used. However, similar to the first observation, there was a very minimum utilization of this technique in which it was used to broaden students' perceptions about 'Technology'. It was shown from the data that the students perceived 'Technology' as referring to modern inventions such as computer, mobile phone, robot, satellite, internet, aircraft, and digital camera. Based on the responses, Teacher Y asked the students as follows:

Teacher Y : What about the pencil that you are using? Is it a part
of technology?

Ss : (There was a dead silence for a while. They looked
doubtful to answer).

Ss : Yes!

Ss : No!

Ss : Silent.

Teacher Y : Yes. It is a part of technology. Technology does not
only refer to modern and sophisticated inventions.

(Appendix 9)

Contrary to the first and second observations, the questioning technique used in the third class was even less. The students in this class were only asked with questions that elicit them to recap and to check their understanding in relation to the previous lesson. There was no indication to show that the questions asked were intended to engage the students in higher-order thinking processes.

Apart from interactions between teacher and students and questioning technique, Teacher Y also utilized group discussions in all the classes observed. On one of the occasions, she involved the students in group discussion to prepare for the role-play. Thus, there was an integration of group discussion and role-play took place at the same time. In the discussion, the students were expected to prepare the script and to assign a few of the group members to take the role of the characters involved in the chapters (chapters from *The Prisoner of Zenda*). It is to be noted that there was no clear guidance given to the students. Before the group discussion took place, I did not see Teacher Y explained to the students on how would the group work should operate. As mentioned earlier, the students were

supposed to dramatize the chapters after the discussion, and I was given to understand by Teacher Y that this was her first attempt to do role-play with the students, but I did not see Teacher Y really explain to them on how to go about doing the role-play. Instead, she went on straight to the assigned task. As such, I could see that one of the groups was quite passive and they did not really discuss as a group. Instead, they were seen talking to their friends sitting next to them rather than sharing their opinion and ideas to the group at large. Even though Teacher Y did wonder around the class, checking on the students' progress, she seemed not to be able to notice the setback.

Lack of clarity when assigning the task to the students could be seen when one of the groups presented their role-play. The acting was very dry indicating that there was no proper preparation made. There was also no script prepared and they merely depended on the novel itself. Throughout the presentation, the students were just standing in front of the class reading out lines from the chapter without much action performed giving very little meaning to the audience. They even overlooked one of the important characters in the chapter that was, the King'. Putting myself as one of the audience, I would not be able to see what was really happening in the chapter if I did not read it beforehand. My knowledge and understanding about the chapter did not accrue from the role-play but from my own reading.

Feeling unsatisfied with the group's performance, Teacher Y personally approached them and inquired about their problems. Besides, she tried to boost the students' motivation by saying that they should be enjoying themselves working together in group. At the later stage of this session, she even called upon a few students to the front and asked them to demonstrate a few events from the chapters. After the detailed explanation, I could see improvement in students' performance. They looked more confident and keen to present as compared to the earlier stage in which they looked quite timid and shy. One of the students even lay down flat on the floor pretending to be dead to convey the actual event as narrated in the novel. At this point, all of the students were seen to be enjoying the activity.

On two other occasions, Teacher Y integrated group discussion with problem-solving techniques in which the students were given a situation to discuss and came up with arguments supporting their stand. In these two classes which comprised of students of different level of proficiency, I could see the variation in teaching strategies employed by teacher Y to suit their language competency. In the class with higher proficiency students, Teacher Y asked the students to discuss and debate on the topics assigned to them. In this activity, I could see that students were very enthusiastic discussing. They were working diligently, trying their best to come up with the strongest arguments so that the opposing groups would not be able to rebut those arguments. In the meantime, Teacher Y was seen walking around the class checking on students' progress. On

a few occasions, she reminded the students to use English. However, during the group presentation, the students expressed their opinions in quite a chaotic manner as there was no proper turn taking. In fact, some of the students became emotional, disturbing the other students who were trying to express their views, and thus making the session less structured and less meaningful.

Unlike the above session, even though Teacher Y used similar strategy that was the integration of group discussion and problem solving, the students were given more guidance due to their limited language competency. In this class, Teacher Y modeled various sentence structures by writing them down on the board to facilitate them to express their views. Besides that, Teacher Y also started a few sentences for them to complete so that the students could be immersed in the English speaking environment. At this point, I noticed that the teacher's effort to get the students to speak was quite fruitful as some of them called aloud to the questions asked. To further facilitate the students, she even provided them with essay reference books so that they could refer to sample sentences used in expressing their thoughts. Thus, in this lesson, it could be seen that Teacher Y was not only focusing on the students' ability to deduce justifiable arguments, but also on the sentence structures used in expressing their thoughts. After the students had finished presenting the outcomes of their discussions, Teacher Y commented on the students' choice of similar expression as they were using 'we agree' and 'we disagree' to state their opinions even though there was a list of other expressions provided by the teacher. Thus, Teacher Y had to re-

explain and provide further assistance to the students. Only after doing this, I could see that the students starting to show enthusiasm in completing the task. This could be an indication that they had comprehended it.

It is undeniable that Teacher Y was trying to impose ‘thinking lesson in this class, however, from the observation, I could see that most of the time Teacher Y was the one who did the talking as she had to explain and re-explain the task so that the students would be able to understand. Thus, in this class, there was an inclination towards the use of direct instruction strategy whereby the teacher would be the centre of the teaching and learning process. Furthermore, due to students’ limited language control, the session was shifted from students’ eliciting opinion based on the task given to teacher’s explanation on the structure of sentences used in argumentative essay.

4.4.3 Teacher Z

Teacher Z was observed in three different classes consisting of lower to higher proficiency students. From the observations, there was very little indication demonstrating the occurrence of thinking activities. In most of the lessons, the sessions were conducted in an unstructured manner. The classroom management appeared to be quite loose. There were no explicit attempts made to engage the students in the classroom activities. Passive students were always left unattended and immersed themselves in their own activities. Furthermore, the control over students’ discipline was also poor.

As far as teaching method is concerned, Teacher Z was seen using the same instructional strategy for all the classes. The strategy used was classroom discussion involving interactions between Teacher Z and the students. Most of the interactions had taken place in the form of teacher explaining the answers for the assigned task. On the other hand, students' talk that occurred in the classrooms was in the form of responding to the questions assigned to them. Even though the observations revealed that there was students' participation during discussion, Teacher Z did not seem to exploit students' input to the maximum. In fact, the session was unstructured because there was no proper turn taking imposed by the teacher. The responses were given in chorus and sometimes in a playful manner. Teacher Z did not seem to give much attention to the students' attempts to contribute to the discussion. Data gathered did not show her attempts to take some actions to get the students to repeat or to further clarify their responses. Instead, she straight away provided them with the answers.

Teacher Z : What does 'the content of the boat refers to'?

Ss : (Students responded in chorus. I could not really hear what they were saying).

Teacher Z : She repeated the question using L1. Apa maksud 'isi boat' (content of the boat)?

Ss : (Again they responded in chorus. There was no certainty in the answers given).

Teacher Z : The phrase refers to the knowledge that 'si tenggang' gained when he was abroad. How does the journey change 'si tenggang'?

Ss : (No one put up their hands. Instead, they answered in chorus).

Teacher Z : Perjalanan tersebut telah menjadikan pemikirannya semakin luas (the journey has broadened his mind).

(Appendix 14)

From all of the observations, the data revealed that in most instances Teacher Z acted as information provider giving very little opportunities for the students to construct their own understanding even when she was teaching students of higher proficiency as seen during the second observation.

Apart from using classroom discussion, the data also showed that Teacher Z utilized questioning techniques in a few instances. However, the utilization was very minimal. During the observations, I could see that Teacher Z did not extensively use questioning technique to probe students' understanding. The questions used were merely intended for the students to retrieve information from the previous lessons.

Teacher Z : How do you know that Dino loves animal?

Ss : (There was no definite response given).

Teacher Z : The phrase refers to the knowledge that 'si tenggang' gained when he was abroad. How does the journey change 'si tenggang'?

Ss : (No one put up their hands. Instead, they answered in chorus).

Teacher Z : Perjalanan tersebut telah menjadikan pemikirannya semakin luas (the journey has broadened his mind).

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Teacher Z : How do you know that Dino loves animal?

Ss : (There was no definite response given).

Teacher Z : Please refer to paragraph one in the text. Why do we say that Dino loves animal?

Ss : He had many pets.....birds, turtle, and fish (directly quoted from the text)

Teacher Z : Yes.....it is indicated in the text that Dino has pets. Only those who love animals will keep pets at home.

(Appendix 13)

Another striking practice that could be seen in Teacher Z's classrooms was the use of L1. Throughout the observations, I could see that L1 was freely used by both the students and the teacher.

Teacher Z : Why do you think identifying 'priority species' is important?

Ss : Tak bagi binatang-binatang ni pupus (to avoid extinction)

Ss : Sebab dah nak pupus (because they almost extinct).

(Appendix 13)

The utilization of L1 occurred both in lower and higher proficiency classes. In all instances, Teacher Z did not do anything to remind the students to use the English Language. Her actions gave the students the idea that it was permissible to use L1

any time they wished. Thus, the overall observation showed that there was almost no evidence of thinking activities taking place in Teacher Z's classroom.

4.5 Factors that limit teachers from teaching higher-order thinking skills.

The problems and challenges perceived by teachers that limit the opportunity to teach higher-order thinking skills will be discussed under the following headings: students' attitude, students' proficiency, culture, time constraint, and teachers' knowledge about higher-order thinking skills

4.5.1 Students' attitude

Data showed that all three teachers unanimously perceived that students' attitude may be the restraining factor in the execution of the teaching of higher order thinking skills. The teachers believed that most of the students in the context of their school refuse to think beyond the four walls of the classroom particularly the students of lower proficiency.

Some of them refuse to think at all. They will just wait for the teachers to give the answers and then write them down in their exercise books.

(Appendix 1: Teacher X, 1st Interview, Q. 6)

...our students are less proactive. They need to be told of doing something. On top of that, they don't have initiative to improve their learning. Most of the times, they expect to be spoon fed.

(Appendix 7: Teacher Y, 2nd Interview, Q. 1)

Generally, most of them refuse to think on their own. Most of the time, they rely on the teachers to provide them with answers. But it does not mean that they have no knowledge at all. It is just that they do not want to trouble themselves to think.

(Appendix 12: Teacher Z, 2nd Interview, Q. 1)

The above responses illustrate that the teachers' view that students' attitude constrains the teaching of higher-order thinking skills. The teachers believed that students' refusal to immerse themselves in thinking activities had restricted them from making the teaching of those skills run smoothly. Teacher Z in one of the interviews even termed it as a 'withdrawal syndrome' whereby the students refused to be involved in any kind of learning activities particularly activities related to the English Language. Besides that, Teacher Y added that children nowadays are spoiled and pampered as they can simply ask whatever they want from their parents. According to her, this kind of lifestyle is now embedded in them, and thus, make them lazy. In addition, their strong inclination towards entertainment has made them lose concentration in their studies.

The observations conducted throughout the study revealed that students' attitude may have major impact in determining the possibility of executing these new instructional approaches. In a number of instances, teachers' plans for the lesson were affected by students who came to class unprepared. For example, in one of Teacher Y's lessons, students appeared to be unprepared when they did not properly work on the role-play assigned to them. Moreover, they also did not have the initiative to consult the teacher beforehand to assist them in their preparation of the role-play.

Apart from the above, the students also sometimes did not treat the activities in the classrooms seriously. In such a situation, they seemed not to be seriously engaged themselves in thinking activities whenever necessary. This attitude was clearly demonstrated in almost all of Teacher Z's classes. During the classroom discussion the students responded in a playful manner, making unnecessary jokes and always resorted to L1.

4.5.2 Students' level of proficiency

Another important factor that could limit the teachers' ability to get the students to indulge in thinking activities was the students' level of proficiency. All the three teachers perceived that language barrier has made the students less confident to openly discuss their views. On top of that, their concerns about producing grammatically correct sentences as well as their abilities to present

correct and acceptable answers have made them quite reluctant to express themselves critically and creatively.

Most of the students do not have the ability to think critically especially weak student.

(Appendix 1: Teacher X, 1st Interview, Q. 6)

Most of the time, the language barrier will be the main obstacle. I cannot say that the weak students come to school with blank slate. I believe they have certain level of thinking ability and they actually have something in their mind, but they cannot express themselves due to language barrier.

(Appendix 6: Teacher Y, 1st Interview, Q. 6)

However for weak students or even some of intermediate students, they cannot think on their own because they are so concern with right or wrong answers. They are scared that what they might say is wrong or unacceptable.

(Appendix 11: Teacher Z, 1st Interview, Q. 6)

As such, due to limited language proficiency, in some cases, the teachers had to resort to L1 in explaining certain matters to the students which would intimidate the chances of being exposed to various language patterns and

structures that could be used later on. Furthermore, most of the students perceived understanding English as knowing the meaning of each and every word found especially in the case of reading comprehension. As a result, students would normally expect direct translation from the teacher. Teacher Y, in her interview stated that:

...as for English Language, most of the time, they expect direct translation from the teacher. For them, understanding English is, knowing the meaning of each and individual word.

(Appendix 7: 2nd Interview, Q. 2)

During the observations conducted, there was evidence showing that students had the tendency of using L1 in articulating their views. Teacher Y, in one of the observations, was seen to repetitively remind the students to use the English Language in their group discussions. However, she was seen using L1 with weaker class. The students were also seen to say their thoughts aloud when they used L1. However, when they responded using English Language, they would do that in chorus so that the teacher would not be able to detect any mistakes made

4.5.3 Culture

Culture is perceived as another restraining factor which deters teachers from carrying out instructional approaches for the attainment of higher-order

thinking skills. All three teachers viewed Malaysians particularly Malays are not encouraged to question too much or they will be regarded as rude. As children, most Malaysians are normally presumed to be obliged with what have been imposed on them. They rarely make their own decision. Teacher Y strongly believed that culture plays important role in shaping the students' minds.

...the Asian, particularly the Malays are not encouraged to question the elders or the people in authority. Whatever being said by the elders is considered as an instruction and the youngsters are obliged to obey.

(Appendix 7)

Teacher Z perceived the same as Teacher Y did. According to Teacher Z, the way the children were brought up has an impact that shape the way of their thinking. She said that Malays usually tell their children what to do. She further stated that this culture has been translated into our education system, particularly into our school curriculum as it does not really provide opportunities for the students to decide what is best for them. The students in Malaysian schools will normally learn what have been prescribed on them. Thus, when it comes to classroom contexts, the students do not have initiatives to make the first move in determining their own learning.

4.5.4 Time constraint

One of the factors that could boost teachers' performance is the preparation. However, in this study, all three teachers claimed that they were burdened with loads of clerical and administrative works that have taken away part of their time to prepare for the lessons. Apart from clerical and administrative works, teachers also had to attend to co-curricular activities which sometimes require them to leave their classes as claimed by Teacher X. As such, when they get back to class they have to speed up to catch up with the syllabus. In such a situation, nothing much could be done to engage the students in thinking activities. Teacher Z admitted that those commitments have greatly affected her teaching practice as the volume of works has been increasing from time to time. Being the head of the English Language Panel, it is quite difficult to manage her time efficiently. She has to spend a considerable amount of time to attend to work relating to the management of the panel such as attending meetings, completing panel's management files, doing the yearly planning including allocating budgets, recording stocks, and attending to teachers' problems. In fact both teacher X and teacher Z confessed that they could only utilize 10 to 15 percents of their time in schools to prepare for the lessons.

Teacher Y, on the other hand was quite flexible in this case. During the interview, she admitted that sometimes those commitments seemed unnecessary and repetitive. She also did not deny that it was quite time consuming attending to

all of these commitments, and they were quite burdensome to a certain extend. However, Teacher Z perceived some of the commitments were self-fulfilling as they gave her the opportunities to broaden her views over certain matters. For example, there were certain assignments which required her to leave school, and she used this opportunity to meet other teachers of different backgrounds in which she would discuss and exchange ideas in relation the teaching practices. Besides that, by attending certain courses or seminars, she could gain new knowledge and exposures that boost her confidence to teach. The same applies to her involvement in co-curricular activities:

Speaking about co-curricular activities, to some people, those activities are a waste of time, but, for me they help to broaden my horizon mixing around with students of different background and interests. Thus, it helps me to learn on how to deal with them, and the most interesting part is that, these activities help me to establish good rapport with the students and most of the interactions that occur between us are more casual. Thus, in a way, it helps in making them more comfortable to interact with me in the classrooms.

(Appendix 7, 2nd Interview, Q. 13)

Thus, commitments other than teaching activities may be burdensome to the teachers to a certain degree. It depends on how the teachers perceived those

commitments and make the most out of them for the benefit of their teaching practices.

4.5.5 Teachers Knowledge of Higher-Order Thinking Skills

From the observations and interviews conducted, it could be said that all of the teachers involved in this study have basic knowledge about what higher-order thinking skills are. However, Teacher X and Teacher Z admitted that they are not really sure of their knowledge in relation to the pedagogical approaches to be used to maximize students' acquisition of higher-order thinking skills. Teacher Z, during the interview admitted that:

I have knowledge about higher order thinking skills. However in terms of teaching it especially in choosing suitable approaches, I may have problems. This is because I am so used of teaching students of lower-proficiency whereby most of the students solely rely on the teacher. Furthermore, I have never received any proper training as regard to the teaching of higher order thinking skills.

(Appendix 12, 2nd Interview, Q. 8)

Teacher X shared the same perceptions as Teacher Z did as she responded in one of the interviews saying that:

Basically, I have knowledge in thinking skills. However, I *don't* (am not) really confident with my ability to teach or infuse thinking skills in my teaching. The exposure given to me when I was in teaching college was not sufficient.

(Appendix 2, 2nd Interview, Q. 8)

In both cases, the teachers reasoned that their limited knowledge in relation to the instructional approaches suitable to enhance students' thinking skills was due to the little training received.

Teacher Y, on the other hand seemed comfortable with her knowledge in relation to this matter. In fact, she was of the opinion that the important thing is not how much she knows but how she goes about executing it in her respective classrooms. The observations also revealed that she had made explicit attempts to incorporate higher-order thinking skills in all of her lessons, even in classes comprising of lower proficiency students. There was evidence of her attempts to vary her teaching strategies suitable to the students' level of proficiency.

4.6 Conclusion

From the analysis of the data gathered, there were signs that signify the possibility of teaching higher-order thinking skills in English Language classrooms. There were efforts made by teachers to maximize students' learning

and understanding through their active participations and contributions in the activities carried out. Furthermore, none of the teachers denied the value of higher-order thinking skills in making learning experience more meaningful. However, in the excitement of shifting the teaching practices from teacher-centred to student-centred, perhaps there is a need to strike a balance between the possibility of implementing these new instructional approaches and the problems and challenges faced by both teachers and students.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter aims at discussing the findings of this study based on the data analyzed in the previous chapter. Discussion will be centred on the research questions in relation to the theories and previous researches. Conclusions could be made picturing the actual situations of the classroom practices of English Language teachers in SMKPP pertaining to the teaching of higher-order thinking skills.

5.2 Discussion

5.2.1 Teacher X

Teacher X displayed her knowledge and understanding towards higher-order thinking skills by relating it to the ability of generating ideas as well as handling and solving problems and she believed that with such skills, students' learning could be improved. However, similar to teacher Z, she openly admitted that she was not convinced with her ability to effectively employ instructional strategies appropriate for the enhancement of thinking skills among students. This can be proven when the analysis provides that there was limited variation in her teaching strategies which centred on group discussions and drilling practice.

In spite of having insufficient pedagogical knowledge necessary to promote the attainment of higher-order thinking skills, Teacher X exhibited positive attitude towards realizing the teaching of such skills. The observations revealed that Teacher X has created a supportive and non-threatening environment in which the students felt free to question and express their opinions. The students never hesitated to ask questions and to seek assistance from her. Teacher X did not use her limited pedagogical knowledge as an excuse to use chalk and talk strategy and dominate most of the classroom time doing the talking. Instead, she tried to maximize students' active participation through small group discussion.

Discussion is an orderly process of face-to-face group interaction in which people exchange ideas (Killen, 2007). Discussion is a versatile teaching and learning strategy that can be adapted to suit any subject at any level of education as it can be used to solve problems, answer questions, enhance the students' learning and understanding, or make decision. It can involve the whole class or can be used with small groups. It is undeniable that discussion helps students to exchange and share their thoughts. However, as far as Teacher X is concerned, I could see that the group discussion employed did not really facilitate students to engage in deep thinking activities. It is important to note that the quality of a discussion is crucial. Research indicates that the way students discuss ideas influences learning (Gillies & Ashman, 1998; King, 1999 as cited in Eggen & Kauchak, 2004). What the students talk is what they learn. If the talk is about a

football game, dance, or other social activities, students learn less as the topics do not require students to exercise deep thinking. In Teacher X's classroom, it could be seen that the task assigned for group work activities did not really provide the students the opportunities to carry out a variety of thought demanding activities with the topics except when the students were required to identify the errors and to re-punctuate the given text. Nevertheless, throughout the group discussions, she seemed to be taking an appropriate role that is the role of facilitator whereby she was always ready to provide assistance whenever required.

Similarly in other instances when she was seen to be using writing activities and questioning techniques in her lessons, it was merely done on surface level. Studies have shown that higher level questions appear to be instrumental in enhancing students' thinking (Redfield and Rousseau, 1981). Conversely, what constitutes higher level questions is still debatable. One powerful distinction is that between recitation questions (those requiring students to simply retrieve information previously learned) and construction questions (those requiring students to construct new ideas or conclusions relative to information in long term memory) (Rajendran, 2001). In the case of Teacher X, the questioning technique was merely used to get the students to retrieve the information that they have about punctuations. In another occasion, the questions asked were meant to get the students speak the language. None of the questions have distinctive characteristics that challenge the students to think critically and creatively. This

may be due to her limited knowledge in relation to pedagogical approaches suitable for the acquisition of higher-order thinking skills.

In view of the above, I could conclude that Teacher X is positive towards the implementation of the teaching of higher-order thinking skills. The only obstacle that limits her ability to execute it effectively is her limited pedagogical knowledge.

5.2.2 Teacher Y

From the analysis, it can be seen that Teacher Y portrayed a deeper understanding of what the teaching of higher-order thinking skills really means. Besides defining the skills as involving various thinking activities such as reasoning and problem solving, she further elaborated that she perceived teaching thinking skills in the school context as to exploit the subject-contents towards developing those skills when she said that “we don’t really teach thinking skills but we use the context and activities to develop such skill” (Appendix 6). In other words, thinking skills cannot be taught in vacuum. It needs a medium, in this case, English Language subject, through which the acquisition of the skills can be augmented. This is in line with the contention made by McPeck (1981 as cited in Rajendran, 2001) when he says that generalizable thinking skills do not exist. He hold that thinking is always about a subject, so general thinking ability detached from a subject cannot conceptually exist.

Even though she received very little formal training on how to go about teaching higher-order thinking skills, she was quite confident with her ability to teach the students towards the attainment of such skills. She argued that the quantity of knowledge is not the key determinant that decides whether a teacher is able or not to deliver her teaching in a way that improves the quality of students' thinking. It is how a teacher actually plans his or her lessons so that students are able to think more deeply and effectively. In fact she has demonstrated a desirable attitude whereby she has taken various steps to gain knowledge and deeper understanding without just sit and wait for such knowledge to come. In this case, it was seen that she was never satisfied with what she knew and always wanted to learn more. Even though, she perceived that she had a substantial knowledge of the subject content, she was quite resourceful and inventive as she still looked forward to learn and explore so that there was always something new to be shared with the students. Even when she was in the staffroom, she was seen spending her time reading and surfing the internet. When she was asked, she said that she was searching for some materials to be used in the classroom. Contrary to Teacher X and Teacher Z, she admitted that she normally spent around 70 percents of her time in school preparing for her lessons.

Besides that, during the interviews, she also exhibited her enthusiasm as she was always keen to provide thick description of her knowledge, belief and classroom practices. In the meantime, she always held different views as compared to the other teachers. She rarely perceived students' limited proficiency

in English Language as the main obstacle for her to carry out the teaching of thinking skills as she always believed that all students can be guided towards achieving higher-order thinking and that it is her responsibility to try her hardest to be sure that all reached their maximum potential. What is important is to habitually carry out activities suitable to promote quality thinking among students. Furthermore, she even stressed that initially the teacher is the one who has to make a move by introducing activities suitable to the students' level of proficiency before gradually increasing the degree of complexity until they master the skills well. This can be illustrated by referring to one of her lessons in which she varied her strategies to teach similar topics to students of different level of proficiency. This belief confirms with developmental approach proposed by Piaget, Vygotsky and Bloom (Byrnes, 1996) as they viewed that there is a continuum of thinking ranging from lower forms to higher forms and students have to master the lower forms of thought before they are capable of higher forms. This belief and attitude also proved that she was in high personal teaching efficacy, which is the belief that teachers can have an important positive effect on students (Bruning et al., as cited in Eggen & Kauchak, 2004).

Of all the three teachers observed, Teacher Y's classroom practices most closely reflected the teaching of higher-order thinking skills. Data showed that Teacher Y has taken various roles in her classrooms. In many instances she did not confine her role to only teaching the subject but to guide and direct students' thinking towards stimulating higher-order thinking skills. As such, it seemed that

she tried to create the environment conducive to the attainment of the skills. In doing so, she usually considered her students' background knowledge and needs by choosing the topics that were very common to their daily life as a student such as public canning, mobile phone, computers and long school session. Her instructions also showed that she encouraged students' participation and contributions throughout each lesson. The analysis supported this interpretation showing that the students were engaged in various activities such as group discussion, debate and role-play. In most of her practices, talk among students rather than teacher-directed talk dominated the discussion in which the students were encouraged to think more deeply about the topic and further develop their thinking skills. Even though, while doing role-play with one of the classes, Teacher Y seemed to overlook the importance of providing the students with a clear set of guidelines which led to an unorganized presentation, she was able to overcome the problem by explicitly communicating her expectations and properly re-directed the students towards achieving their group's goals.

In a nutshell, it can be concluded that Teacher Y translated her beliefs towards teaching higher-order thinking skills into her classroom by creating opportunities for the students to construct their own learning through active participation that could lead to cognitive development. Her positive attitudes had helped to influence her teaching practices to promote the acquisition of higher-order thinking skills.

5.2.3 Teacher Z

Similar to the other teachers, Teacher Z basically understood what higher-order thinking skills are. She defined higher-order thinking skills as involving the ability to think critically and creatively as well as the ability to analyze a situation. Furthermore, she also believed that higher-order thinking skills could help students' self-improvement and at the same time was an essential skill for survival in this challenging era. However, from the responses given during the interviews, I can infer that instead of having basic knowledge of what thinking skills were, her understanding pertaining to higher-order thinking skills was limited. This can be illustrated when she perceived the examination questions as not constructed in a way that could facilitate the students to exercise higher-order thinking skills. She failed to see that examination questions were actually constructed in accordance with children cognitive development as proposed by Benjamin Bloom (1956 as cited in Byrnes, 1996) in which they cover all levels of thinking skills starting from testing the students knowledge until requiring students to analyze, synthesize and evaluate.

Besides claiming that she had knowledge pertaining to higher-order thinking skills and was able to name a few teaching strategies that associated with the attainment of those skills, she declared that her knowledge pertaining to such pedagogical approaches was limited and insufficient. Moreover, she claimed that she received very little exposure on how she could promote thinking skills among students using specific instructional approaches. As compared to the teaching of

higher-order thinking skills, she felt more confident to teach the subject contents. Teacher Z even admitted that when she started teaching 15 years ago, the teaching of higher-order thinking skills especially in English Language subject was not emphasized. The teaching of English Language was mainly focusing on grammatical rules and language structures. In addition, she had been teaching mainly low proficiency students who relied so much on teachers in directing their learning throughout her teaching experiences and this had limited her opportunities to really practice and experience the teaching of thinking skills.

Contrary to Teacher Y, regardless of having faith in the importance of the teaching of higher-order thinking skills in improving students' learning, she was quite pessimist as regards to the students' readiness to immerse in thinking activities. She denied weaker students the possibility of exercising higher-order thinking skills. She believed that most of these students would expect teachers to provide them with the information which was deemed necessary for their learning.

Besides that, Teacher Z also was not showing positive attitudes towards the teaching of higher-order thinking skills in her classrooms. From the interviews, she repetitively stressed that her main concern in most of her lessons was to ensure that students would be able to answer questions correctly and to maximize the number of passes in every examination. In such a case, what really mattered for her was the end-product of each teaching and learning process giving

little importance on the process within which the students had to go through in understanding the topics at hand. Thus, during the observations, it could be seen that Teacher Z in most instances coached the students towards answering the questions rather than prompted them with questions that encouraged them to think critically and creatively. Even though, there was one occasion in which Teacher Y was seen trying to engage the students' in classroom discussion, it was not properly planned and carried out. Throughout the lessons, she was the one who dominated the session, doing the talking and explaining. She did ask the students questions which encouraged students' thinking. However, without giving much notice to students' responses, she straight away gave them the answer and instructed them to write it down in their exercise book (Appendix 13). This was contrary to what she has said that the teaching of thinking skills could be carried out with students of higher proficiency. She was observed to be using teacher-centred approach most of the times regardless of whatever proficiency levels the students were.

Apart from the above, during the observations, it was found that she did not model a desirable attitude that could motivate students to contribute towards their learning and understanding. It is to be noted that teacher's belief and attitude about teaching and learning were communicated through their behaviours. Student motivation is virtually impossible if teachers model distaste or lack of interest in the topics they teach, and when motivation decreases, so does learning (Eggen & Kauchak, 2004). This can be illustrated when in all of her lessons,

Teacher Z was never seen to provide any kind of introductory focus to attract students' attention and provide the foundation for the rest of the lesson. This introductory focus is pertinent to enhance motivation by arousing curiosity and making the lesson content attractive (Eggen & Kauchak, 2004). Teacher Z, on the other hand, usually began her class session by asking the students to take out their exercise books and straight away went on to the subject-contents. In most of the occasions, Teacher Z preferred to be standing in front of the class delivering the intended content to the students and she did not indicate any signs to reflect that she felt unease with the usage of L1 by the students during the lesson. In fact, the analysis also revealed that Teacher Z herself was also using L1 even with higher proficiency students.

Besides that, from the analysis, the classroom environment also seemed uninviting for thinking activities to take place. The classrooms were poorly managed. It is undeniable that organization and classroom order are important factors in classroom management. A large body of research indicates that teachers' ability to maintain orderly classrooms is one of the most important factors influencing students' achievement (Blumenfeld et al., 1987; Evertson, 1987 as cited in Eggen & Kauchak, 2004). Teacher Z, in this case has overlooked its importance whereby students who tend to display disruptive attitude were left unnoticed. The same attitude was shown towards passive students. Nothing much was done to ensure that the students spent most of their time on learning.

Thus, based on the data, it can be concluded that Teacher Z did not deny the role of thinking skills in enhancing students' learning. However, her classroom practices did not show that she had adopted instructional approaches which supported the implementation of thinking skills. This may be due to her limited knowledge and understanding in this area as well as her perceptions towards students' ability to immerse in thinking activities.

5.3 What Factors Contribute to Differences in Teachers' Classroom Practices?

Generally, the data showed that regardless of sharing the same views about the importance of thinking skills, the teachers were showing different practices in their teaching practices. Two conflicting classroom practices were found. One is that a teacher's inclination towards teaching higher-order thinking skills and the other is teacher's resistance towards infusing such skills in the classrooms.

One of the factors that had a notable impact on the differences is their beliefs and attitudes towards teaching as well as the students' learning. Kagan (1992) suggested that how we teach depends to a large extent on who we are. The goals we select, the strategies we use to reach the goals, and the way we relate to students all depend on what we bring to the classroom as human being. It is no doubt that other than home environment, teachers are the most important

influence on students. Thus, as discussed earlier, we could see that Teacher Y who reflects the most positive attitude and belief in relation to her ability in disposing higher-order thinking skills in her respective classrooms as well as towards students' ability to acquire such skills has significantly influenced her teaching practices. As it was seen, Teacher Y has made deliberate attempts to teach and infuse higher-order thinking skills in all of her lessons. Even though, on one occasion when she was having low proficiency students she could not carry out her lesson as planned, she demonstrated her attitude as a reflective teacher as she continuously reviewed her strategies as well as students' reaction. Given her reflection, she was then able to take immediate remedial steps to overcome the setbacks. Based on her understanding that every student's cognitive development progresses in unique ways, she seemed not to underestimate their abilities as individual learners. Killen (2007) says that there is no point of being a teacher if you are pessimist. You have to believe that students can learn and will learn; you have to believe that you can make a difference to students' lives; you have to believe that the world (and the education system within which you work) can be a better place and that you have a role to play in transforming it. That is why, in this case, Teacher Y has taken into account factors such as students' cognitive abilities and learning styles, and thus, engaged them in various learning activities.

Teacher Z, on the other hand, who was quite pessimistic in relation to the students' readiness to think and learn, has been showing different teaching practices compared to Teacher Y. Onosko and Newmann (1994) in one of their

studies found out that when students are perceived as lacking of thinking skills, teachers are less likely to craft lessons that require higher-order challenges. Throughout this study, Teacher Z repeatedly complaint about the students who refused to take responsibility or some degree of autonomy in directing their learning. Furthermore, she claimed that extra work other than teaching commitment has restrained her from spending her time to prepare for her lessons. On top of that, having stressed on the examinations, she openly admitted that she had to teach in accordance with the examination requirements so that the number of passes could be increased. This may be due to her position as the Head of English Language Panel whereby she would be questioned if the students' achievements in the subject did not reach satisfactory level. This kind of attitude has greatly influenced her behaviours in classrooms. She seemed to take the role of knowledge transmitter instead of facilitator in all of the lessons. There was no indication of explicit attempts made to invoke higher-order thinking skills in the classroom. This traditional approach has affected the students' motivation to learn as they exhibited playful manner in many instances. They did not seem seriously engaged in thinking activities as they knew that the teacher would later on provide them with the answers for each question asked.

Knowledge both in pedagogical skills and subject contents was also found to be the factor influencing the distinctions of the teaching practices among the teachers studied. Teacher Y who was seen to have a deeper knowledge and understanding in the areas was able to construct a specific pedagogical content

knowledge necessary to teach higher-order thinking skills in her English Language classroom. This is because, the teachers in this case need to be able to construct the pedagogical content knowledge not only for the teaching of English Language , but also for the teaching of thinking skills. In other words, the stress here, are both to improve the students' English Language proficiency as well as their higher-order thinking skills.

Another apparent factor that may influence the differences is teachers' motivation. Teachers' motivation can be inferred from their attitudes and behaviours in the classroom. Enthusiastic teachers are more successful than unenthusiastic teachers at engaging students in learning (Killen, 2003), and when learners can see that their teacher is enthusiastic, this influences their motivation and their perceptions which in turn positively influences their learning. As compared to teacher Z, Teacher Y had demonstrated highly motivated attitude which I could see influencing her students' motivation to involve in the learning activities. At one point, the students could still engage in activities which required them to exercise higher-order thinking skills even though it was already 2.00 p.m. and most of them were tired after a long day at school. However, there was no indication showing that they were waiting for the bell to ring so that they could free themselves from the hustle and bustle of school life. Instead, they were seen enthusiastically brainstorming points and debating over the subject matter assigned to them. Their facial expression showed that they were enjoying the activities.

Similar to teacher Y, Teacher X also had been demonstrating highly motivated attitude whereby the students were continuously encouraged to participate in the activities carried out and to share the outcomes of their discussions with their fellow classmates. In addition, she was always ready to facilitate students when needed. Besides that, she immediately recognized when students became inattentive and would call on them to bring them back into lesson. Whereas Teacher Z appeared to be less motivate. Her voice sounded monotonous while explaining the subject matters to the students. Sometimes she seemed to be unprepared as she had to read and re-read the questions, thinking for the answers. This kind of attitude gave the impression that she was not confident and it would in a way reduce students' motivation and ultimately, their achievement.

5.4 Conclusion

The teachers under study generally perceived that they understood the notion of higher-order thinking skills. However their beliefs and attitudes seemed to have a significant influence in shaping their teaching practices. The findings reflected that teachers with positive beliefs and attitudes showed more inclination towards transferring the curriculum innovation into reality. On the other hand, evidence showed that teacher with low expectations of the students' ability tend to be content with his or her routine practices in the classrooms. Thus, the finding of

this study suggests that teachers need to possess the right attitude and beliefs necessary to teach higher-order thinking skills and English Language because teachers' views of teaching and learning shape their classroom practices.

The discussion of the three teachers shows that there were explicit attempts made to engage in students in activities which required them to analyze, synthesize and make judgements over certain matters. However, there was little success to enhance students' thinking skills. The reasons may be due to their limited knowledge both in the content area as well as pedagogical approaches. This is because the teachers were seen not to judiciously make use of the instructional strategies and also the subject-content to the maximum to promote the acquisition of higher-order thinking skills by the students.

Apparently, in this study, there was one teacher who perceived that she was able to develop students thinking abilities through the teaching of the content area. In addition, of all the teachers studied, she reflected the most desirable attitude towards her profession as a teacher whereby she showed her enthusiasm, engagement and satisfaction with her teaching jobs. Due to this, she was seen responsive to innovations and policy changes as she explicitly made efforts to translate the curriculum requirement to infuse higher-order thinking skills into her classroom practices.

Regardless of whatever beliefs that the teachers had towards teaching and learning, there were times when the situations were just beyond their control. It is unfair to totally blame the teachers for not being able to infuse the higher-order thinking skills in their practices. As it was seen in this study, the students' disruptive behaviour, their limited language proficiency and their attitude towards learning have become barriers for the promotion of higher-order thinking skills.

In a nutshell, it can be concluded that teachers need subject matter knowledge, the necessary pedagogical skills, and the attitude to teach. In order to achieve this, there should be a continuous professional development for teachers which are constantly carried out so that teachers will be more innovative in making the teaching of higher-order thinking skills in English Language classroom a success. It is insufficient for the ministry to just provide teaching materials which were deemed necessary to the teachers. A comprehensive training should be given to ensure that the teachers are competent enough to carry out the teaching of thinking skills. In addition, this study shows that it is not that the teachers were resistance towards change. The teachers were not really sure of what they should actually do to promote such skills to the students.

5.5 Implications

The implementation of the teaching of thinking skills has several implications. A comprehensive training and an on-going professional

development should be provided to the teachers. Bunchmann (1993 as cited in Rajendran, 2001) viewed that on-going professional development efforts may provide teachers the opportunity to be members of a professional community which may allow them to move away from the notion that teaching is an individualistic and idiosyncratic practice. This professional community could help teachers improve their practice. Besides that, teachers also need to be encouraged to contextualize their discussions on teaching higher-order thinking skills Rajendran, 1998). In such a case, support from school administration may be needed especially in providing resources necessary for the teachers to organize the discussion.

On the other hand, the school might need to decrease the number of students so that the teaching of thinking skills can be carried out at a maximum level. Lesser number of students in a class promotes better attention and teacher-student and student-student interactions (Arias and Walker, 2004 as cited in Nazima Versay Kudus, 2007). Thus, the teaching of thinking skills could be enhanced.

5.5 Recommendations for Future Studies

As mentioned earlier, this study was conducted to investigate teachers' beliefs, knowledge, attitude and classroom practices pertaining to the implementation of higher-order thinking skills in the English Language

classrooms. In other words, the report of this study was mainly written from the teachers' point of views. As such, I would like to suggest that future studies be focused on the implementation of thinking skills from the eyes of the students.

Besides that, future research should also attempt to study the materials provided by the Ministry of Education including the textbooks to examine whether or not they support the implementation of the teaching of thinking skills. By doing so, a clearer picture of the whole situation can be obtained.

REFERENCES

- Ambigapathy, P. (2007). English for all: Reflections and best practices. In A. Pandian et al. (Eds.), *Innovation and intervention in ELT: Pathways and practices* (pp 1-15). Serdang: Universiti Putra Malaysia Press.
- Ambigapathy P. (2004). Breaking the silence-voicing English language teachers in Malaysia, in Malachi E. V (Ed.), Wijasuriya, Petaling Jaya: Sasbadi Sdn. Bhd.
- Arias, J.J. & Walker, D.M. (2004). Additional evidence on the relationship between class size and students performance. *Journal of Economic Education*. 4. 35(4): 311-330.
- Ary, D., Jacobs, L.C. & Razavieh, A. (2002). *Introduction to research in education*. Fort Worth: Halt, Rinehart and Winston.
- Aslı, Ö. T. (2003). *The uses of teaching literature in EFL classes*. Ekev Akademi Dergisi. Retrieved April 15, 2008 from <http://www.ebscohost.uum.edu.my/>
- Barell, John, (1991). *Teaching for thoughtfulness: Classroom strategies to enhance intellectual development*. New York: Longman.
- Bloom, B.S., Englehart, M.D., Furst, E.J., Hill, W.H. & Krathwohl, D.R. (Eds.). (1956). *Taxonomy of educational objectives: The classification of*

educational goals. Handbook 1: Cognitive domain. New York: David McKay.

Borich, G.D. & Tombari, M.L. (1997). *Educational psychology: A contemporary approach.* New York: Longman.

Brody, C. (1998). The significance of teacher beliefs for professional development and cooperative learning. In C. Brody & N. Davidson (Eds.), *Professional development for cooperative learning: Issues and approaches* (pp. 25-48). Albany: Albany State University of New York Press.

Brunning, R., Schraw, G. & Ronning, R. (1999). *Cognitive psychology and instruction (3rd ed.)*. Upper Saddle River, NJ: Erlbaum.

Bunchmann, M. (1993). Role over person: Morality and authenticity in teaching. In Margaret Bunchmann & Robnert Floden, *Detachment and concern*, New York: Teachers College Press.

Byrnes, J.P. (1996). *Cognitive development and learning in instructional contexts. United States of America:* Allyn and Bacon

Carr, K. (1990). *How can we teach critical thinking?* Retrieved on June 19, 2006 from <http://chiron.valdosta.edu/whuitt/files/critthnk.html>

Crabbe, A.B. (1982). Creating a brighter future: An update on the Future Problem Solving Program. *Journal for Education of the Gifted*, 5, 2-11.

Cohen, L., Manion, L., & Morrison, K. (5th ed.) (2000). *Research methods in education*. London: Routledge.

Curriculum Development Centre. (1989). *Integrated curriculum for secondary schools*. Kuala Lumpur, Malaysia: Ministry of Education.

Dart, B. (1994, November). *Measuring constructivist learning environments in tertiary education*. A paper presented at the Annual Conference of the Australian Association for Research in Education, Newcastle.

Delamont, S. (2002). *Fieldwork in educational settings: Methods, pitfalls and perspectives* (2nd ed.). London Routledge.

Dixon, F., J. Cassady and T. Cross. (2005). Effects of technology on critical thinking and essay writing among gifted adolescents. *The Journal of Secondary Gifted Education* XVI: 180-189.

Dong, R.Y(2006).Learning to think in English. *Educational Leadership*.

Retrieved July 23, 2008 from <http://www.ebscohost.uum.edu.my/>

Duckworth, E. (1987). *The having of wonderful ideas and other essays on teaching and learning*. New York, NY: Teachers College Press.

Educational Planning and Research Division. (1994). *Education in Malaysia*. Kuala Lumpur, Malaysia: Ministry of Education.

Eggen, P.D. & Kauchak, D.P. (2004). *Strategies for teachers teaching content and thinking skills (4th ed.)*. Boston: Allyn and Bacon

Ennis, R.H. (1989). Critical thinking and subject specificity: Clarification and needed research. *Educational Researcher*, 18 (3), pp. 4-10.

Fisher, A. (2001). *Critical thinking: An introduction*. United Kingdom: Cambridge University Press. **Retrieved July 23, 2008 from <http://assets.cambridge.org/>**

Fisher, A. & Scriven, M. (1997). *Critical thinking: Its definition and assessment*. CRIT Edge Press.

Gay, L.R., Mills, G.E., & Airasian, P. (8th ed.). (2006). *Educational research.*

Competencies for analysis and applications. Upper Saddle River, New Jersey: Merrill Prentice Hall.

Geertz, C. (1973). *The interpretation of cultures.* New York: Basic.

Gillies, R. & Ashman, A. (1998). Behavior and interactions of children in cooperative groups in lower and middle elementary grades. *Journal of Educational Psychology*, 90(4). 746 -757.

Glaser, E.M. (1941). *An experiment in the development of critical thinking.* New York: AMS Press.

Gourley, T.J. (1981). Adapting the varsity sports model of non-psychomotor gifted students. *Gifted Child Quarterly*, 25, 164-166.

Hadjioannou, X. (2007). Bringing the background to the foreground: what do classroom environments that support authentic discussions look like? *American Educational Research Journal*. 44,2.

Hammersley, M. & Atkinson, P. (1995). *Ethnography: principles in practice.* London: Routledge.

Indramalar, S. (1997, July 6). Develop thinking skills, students urged. *The Star*, p.3.

Kagan, D. (1992). Professional growth among preservice and beginning teachers. *Review of Educational Research*, 62, 129-169.

Kahn, R.L. & Cannell, C.F. (1957). *The dynamic of interviewing, theory, techniques and cases*. New York: Wiley.

King, A. (1999). Teaching effective discourse patterns for small-group learning. In R. Stevens (Ed.) *Teaching in American schools* (pp. 121-139). Columbus, OH: Merrill.

Kementerian Pelajaran Malaysia. (2000). *Huraian Sukatan Pelajaran Sekolah Menengah*. Kuala Lumpur: Dewan Bahasa dan Pustaka.

Killen, R. (4th ed.). (2007) *Effective teaching strategies: Lessons from research and practice*. Australia: Thomson Social Science Press.

Klemm, W.R. & Snell, J.R. (1996). Enriching computer-mediated group learning by coupling constructivism with collaborative learning. *Journal of Instructional Science and Technology*. Retrieved February 27, 2009, from www.usq.edu.au/electpub/e-jist/docs/old/vol1no2/article1.htm.

Kudus, Nazima Versay (2007). Curriculum for literacy in English: Teachers' perspective. In A. Pandian et al. (Eds.), *Innovation and intervention in ELT: Pathways and practices* (pp. 175-185). Serdang: Universiti Putra Malaysia Press.

Lodico, M.G., Spaulding D.T., & Voegtler, K.H. (2006). *Methods in educational research: From theory to practice*. United States of America: Jossey-Bass.

Lofland, J. (1971). *Analyzing social settings: A guide to qualitative observation and analysis*. Belmont, Calif.: Wadsworth Publication Co.

Lubart, T.I. (2001). Models of the creative process: Past, present, and future. *Creativity Research Journal* 13: 295-308

Marshall, C. & Rossman, G.B. (1989). *Designing qualitative research*. London: Sage Publication.

Marzano, R.J. (1991). Language, the language arts, and thinking. In James Flood et al. (Eds.) *Handbook of research on teaching the English Language Arts*. New York: Macmillan Publishing Co.

McMillan, J.H., & Schumacher, S. (2001). *Research in education: A conceptual introduction*. United States: Longman

McPeck, J. (1981). *Critical Thinking and education*. New York: St. Martin's Press.

Miles, M.B. & Huberman, A.M. (1994). *Qualitative Data Analysis*. London: Sage Publication.

Nunan, D. (1989). *Designing tasks for communicative classroom*. Cambridge: Cambridge University Press.

Onosko, J.J., & Newmann, F.M. (1994). Creating more thoughtful learning environments, In J.N. Mangieri & C.C. Block (Eds.) *Creating powerful thinking in teachers and students: Diverse perspectives*. Fort Worth: Harcourt Brace College Publishers.

Othman, Nurliza (2002). Thinking skills – a motivational factor in ELT. Jurnal Pendidikan IBPA. Retrieved on 23 July, 2008 from <http://apps.emoe.gov.my/ipba/>

Patton, M.Q. (1990). *Qualitative evaluation and research methods*. (2nd ed.). Newbury Park, CA: Sage Publication.

Piaget, J. (1963). *The origins of intelligence in children*. New York: W.W. Norton and Co., Inc.

Philips, J.A. (1992). Memperkembangkan daya pemikiran pelajar melalui mata pelajaran KBSM. *Malaysian Journal of Teacher Education*, 8, 1-15.

Prawat, R. (1992). Teachers' beliefs about teaching and learning: A constructivist perspective. *American Journal of Education*, 100, pp. 354-393.

Pressley, M., Mohan, L., Raphael, L.M. & Fingeret, L. (2007). How Does Bennet Woods Elementary School Produce Such High Reading and Writing Achievement? *Journal of Educational Psychology*, 99(2), 221-240.

Rajendran, N.S. (2001) *The teaching of higher-order thinking skills in Malaysia*.

Retrieved on September 18, 2008 from <http://nsrajendran.tripod.com/>

Rajendran, N. S. (2001). *Dealing with biases in qualitative research: A balancing act for researchers*. Paper presented at the Qualitative Research Convention 2001: Navigating Challenges. **Retrieved on September 18, 2008 from <http://nsrajendran.tripod.com/>**

- Rajendran, N. S. (1998) *Teaching higher-order thinking skills in language classrooms in Malaysia: The teachers' dilemmas*. Inaugural Conference of the Malaysian Educational Research Association, Penang, Malaysia.
- Redfield, D.L. & Rousseau, E.W. (1981). A meta-analysis of experimental research on teacher questioning behaviour. *Review of Educational Research*. 51, pp. 237-245)
- Richards, C. & Killen, R. (1996). Pre-service music teachers: Influences on lesson planning. *British Journal of Music Education*, 13, 31 - 47.
- Robiah Sidin (1993). *Classroom Management*. Kuala Lumpur: Penerbit Fajar Bakti Sdn. Bhd.
- Schmuck, R., & Schmuck, P. (1997). *Group processes in the classroom* (7th ed.). Madison, WI: Brown and Benchmark.
- Sigel, J.E. (1984). A constructive perspective for teaching thinking. *Educational Leadership*, 42, pp. 18-21.
- Silverman, D. (Ed). (2004). *Qualitative research: Theory, Method and Practice*. London: Sage Publication.

Shaharuddin, Shahizan. (2007). The role of writing in shaping thinking: Rediscovering new applications to an old idea. In A. Pandian et al. (Eds.), *Innovation and intervention in ELT: Pathways and practices* (pp. 224 - 248). Serdang: Universiti Putra Malaysia Press.

Stake, E.R. (1995). *The art of case study research*. London: Sage Publications

Sternberg, R. & Martin, M. (1988). When teaching thinking does not work, what goes wrong? *Teachers College Report*, Vol. 89, N.4.

Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Grounded theory procedures and techniques* (2nd ed.). Newbury Park, CA: Sage

Swartz, R. & Parks, S. (1994). *Infusing critical and creative thinking into content instruction*. California: Critical Thinking Press.

Tan, C. (2006). Creating Thinking Schools through "Knowledge and Inquiry": The Curriculum Challenges for Singapore. *Curriculum Journal*, v17 n1 p89-105 Mar 2006. Retrieved May 18, 2007 from <http://eric.edu.gov>.

Torrance, E.P. (1980). More than the ten processes. *Creative Child and Adult Quarterly*, 5, 9-19

Vygotsky, L. (1978). *Mind in society*. Cambridge, Ma: Harvard University Press.

Yaacob, Raja Abdullah & Seman, Norma Abu (1993). *Towards achieving a critical thinking society in Malaysia: A challenge to schools libraries and educational systems*. Education Digest. Retrieved on July 23, 2008 from <http://eric.edu.gov>.