CHAPTER 1

INTRODUCTION

1.1   Chapter Overview

In this chapter, the background of the study, statement of the problem, and research objectives are discussed in detail. It also provides the details on why the study is conducted and its significance, in particular to those interested parties and to the body of knowledge as a whole. Limitation of the study is also discussed in brief. Finally, a list of the definitions of terms is also given to enhance better understanding of the research processes and discussion.

1.2   Background of the Study

Assessment is accepted as an integral part of teaching and learning and is perhaps one of the most complex and important tasks for teachers (Cheng, Rogers & Hu, 2004; Linn, 1990). It is used to drive and support teaching and learning, to diagnose individual student needs, to provide accountability information (on students, teachers, schools and programmes), or to select and certify performance. In the context of English language teaching, assessments of productive skills namely speaking and writing have gained more attention due to its complexity in measurements (Lee, 2008; McMillan, 2007; Mo, 2012). In the scope of writing assessment, it usually involves both teacher responses and more formal mechanisms for student evaluation. According to Grabe and Kaplan (1998), typically, writing assessment occur in two

contexts: the classroom context and the standardized testing context. In the classroom context, writing assessment involves proficiency assessment. It can be formative, where it focuses on the process of writing, or it can be summative in nature, where it focuses on the product. The standardized writing context involves achievement assessment which could also be both formative and summative (Grabe & Kaplan, 1998).

Specifically, Grabe and Kaplan (1998) further explain that writing assessment is summative as it is used to discover the overall quality of writing to determine how much the students know. This process can be direct or indirect. Direct assessment reflects the classroom teaching of writing. This type of assessment gives the opportunity to students to show how they can organize, compose, argue, and use a variety of words and sentences. Indirect assessment is objective and involves editing. It tends to assess writing ability by testing a subset of skills assumed to constitute components of writing ability. This subset usually consists of vocabulary, sentence grammar, and points of writing usage (Grabe & Kaplan, 1998).

On the other hand, feedback by teachers has an implication that although a great deal of second language (L2) learning takes place through exposure to comprehensible input, learners may require negative evidence (i.e., information about ungrammaticality), in the form of feedback on errors (White, 1987).

Freedman (1987) states that feedback:

> …includes all reactions to writing, formal or informal, written or oral, from teacher or peer, to a draft or a final version… It can also occur in reaction to talking about an intended piece of writing, the talk being considered a writing act. It can be explicit or less explicit. (p. 5)

Swain and Lapkin (1995) propose that feedback, whether internally or externally generated, enables learners to notice problems in their output and pushes them to conduct an analysis leading to modified output. They suggest that what occurs between the first and second output is part of the process of L2 learning. However, in the case of external feedback, the extent to which cognitive processes are activated between the learner's first and second output depends on the type of feedback. Ferris, Brown, Liu & Stine (2011), in their study, discover that learners value the feedback given by the teachers and at the same time teachers feel they are obliged to provide feedback in order to improve the learner's performance. It was also noted that even though most instructors were aware of adapting their approach to feedback for L2 writers, the nature of these adjustments varied dramatically across subjects. It shows that teachers are regulating their feedback according to different contexts and types of writings.

Studies done on writing suggest that feedback plays a central role in increasing the learner's achievement. Learners of writing need to know when they are performing well and when they are not (Zellermayer, 1989). The more information learners have about their writing, the better they understand how to perform in a better way (Cardelle & Corno, 1981). Learners of writing need feedback, not only to monitor their own progress, but also to take other's view and adapt a message to it (Flower, 1979).

In theory, constructive feedback provides learners with means of understanding their readers' needs, but in practice, most learners do not receive such feedback (Zellermayer, 1989). Research findings from second language classrooms indicate that writing teachers are mainly concerned with responding to surface level features

and mechanical errors. Such feedback is likely to be ineffective, confusing, inconsistent and contradictory (Cohen, 1987; Robb, Ross & Shortreed, 1986; Zamel, 1985). A number of writing instruction theorists (Semke, 1984; Sommers, 1982) have pointed out that feedback provided and processed inadequately may inhibit the learner's motivation for writing. For example, Sommers (1982) states that "ineffective feedback may direct the writers' attention from his or her purpose and focus that attention to the teachers' attention" (p. 145).

Teachers have the option to give both instructional and evaluative feedback on students' written work. There are also a number of approaches and formats that a teacher can adopt while responding to students' writing. The most common choices include descriptive written commentary, comments for revising major content and organization of the essay, and prose-editing responses on major editorial weaknesses (Grabe & Kaplan, 1998). Caulk (1994) in his study suggests that comments can be divided into six categories which consist of comments on form, reorganization, more information, write less, clarity and style. In general, the teachers' feedback includes all kinds of comments, corrections, codes, suggestions, questions, marks, interviews, discussion, or any other means by which learners receive information about their writing.

Many studies have been done in exploring how teachers assess writing and give their feedback to help students in improving their writing (Hyland, 1998; Hyland & Hyland, 2006; Ferris et al., 2011; Mo, 2012). However, little research has been done on the expert and novice raters on how they differ in assessing and giving feedback on students' written work. This study will take the form of an expert-novice comparison. It will look at what the experts know and what strategies they use that novices do not

know and do not use. Thus, in this way, any systematic changes in the patterns of interpretation and the operations underlying the assessing and giving feedback on students' writing can be examined. According to Erisson and Charness (1994), an expert refers to a person with special skills and knowledge acquired through experience, rather than inherent talent. In this study, the expert and novice raters are relative terms in that the novice may indeed be fairly experienced in assessing and giving feedback on students' writing but is less experienced than the expert raters.

In the study of various domains, the obvious advantage that the experts share is domain knowledge. They not only have a vast body of knowledge, but it is highly structured and organized in memory. These deep structures of knowledge, or schemata, allow the expert to see large and meaningful patterns in problem solving. According to Bereiter and Scardamalia (1993), when experts are given a particular problem, they would typically construct a mental representation that would both define and constraint the task, and they would then quickly solve the problem. While studies (such as Goldstein, 2006; Rennie, 2000) have investigated extensively on the different types of techniques used by raters in assessing learners' writing, very little has been directed towards documenting or modelling the rater's mental states in the assessment process. Hence, apart from looking into the practices of the expert and novice raters in providing feedbacks and assessing (as in most studies within the scope of language testing), this study offers a fresh perspective by analysing the raters' mental states through cognitive analysis.

1.3   Statement of the Problem

Studies that compared both the expert and novice raters often had their focus on quantitative measurements of the raters' testing practices (Baba, 2009; Weigle, 1999).

Though important, little attention is given to the cognitive analysis of the raters' rating practices. Limited knowledge is shared in the realm of writing assessment on what is happening in the raters' mind when they are assessing a piece of writing (Bukta, 2007). Thus, the study on the "mental states" of the raters of writing is a neglected domain that needs to be explored further.

Nonetheless, one reason for the limited research on the area of raters' mental states is the lack of proper framework or model that could be used to assist the investigation (Rennie, 2000). As such, it is the intention of the present study to embark on a comprehensive scrutiny of the raters' metal states by proposing a model, which combines the concept of knowledge states and conceptual operators. Specifically, knowledge states cover the existing knowledge that the raters have when engaging in a writing assessment task. This consists of knowledge on grammar, vocabulary and content. The conceptual operators, on the other hand, is an inferred cognitive process which modifies (adds, eliminates) existing or currently active knowledge states and produces new, active knowledge states (Hassebrock & Prietula, 1992). By incorporating both elements, the mental states of the raters could be analysed and revealed in a more systematic manner. Moreover, the outcome or results of the analysis could also provide valuable input for teachers in helping students to produce a good piece of writing, which has been a daunting task for many teachers especially in the ESL context.

Closer to home, after eleven years of schooling (six year at the primary level and five years at the secondary level, a student will sit for the Malaysian Certificate of Education (MCE) or *Sijil Pelajaran Malaysia* (SPM). Attaining a good grade in SPM is important to decide the student's education direction after that – either to go for a

matriculation program, a pre-university foundation program, a diploma program or continue study at Form 6 level. At the SPM level of examination, there are three types of writing given in Paper Two of the English Language subject: directed writing, summary writing and essay writing. They are very important for secondary school ESL students in Malaysia, especially the essay writing which is the focus of this study. Based on a marking scheme used to mark essay writing (taken from one of the schools), essay writing demands the candidate to be able to:

1. Write sentences of various lengths and types, using a variety of sentence structures as an aid to meaning.

2. Use a wide vocabulary with precision.

3. Punctuate accurately and helpfully.

4. Write paragraphs which demonstrate internal unity and are appropriately linked

5. Respond with relevance and precision to the chosen topic.

6. Engage and sustain the interest of the reader.

As much as it was important for the students to do well in the writing tasks, it is also equally important for ESL teachers to assess their students' writing and provide immediate feedback to ensure that the students progress in their learning process.

To some extent, almost all language teachers conduct their own error analysis (EA) as they see and correct their students' work (Lee, 2008). However, those analyses are often too daunting and too heavily based on impressions to be of much use to them, especially for beginning ESL teachers. Grabe and Kaplan (1998) note that too often teacher's comments are at two extremes. At one extreme, teacher's comments are often very vague, confusing, and provide little specific direction for students when they attempt revision. However, at the other extreme, teachers may provide detailed

editing comment on the surface form with minimal attention to major organizational and content issues. Thus, there is a need to go in between the two extremes. Very experienced teachers or raters might not have much problem in giving quality assessment and feedback on their students' writing. What are the possible acquired skills that these expert raters have and how do they differ from the novice raters (beginning teachers) in terms of cognitive processes involved in assessing and giving feedback on students' writing? These questions guide the present study by focusing on revealing the mental states of the expert raters so that it could be used to assist the novice raters.

1.4   Purpose of the Study

This study was carried out in two phases – the modelling of the expert rater (ER) mental model and the trialling of this mental model. The purpose of the study in the first phase of the study is to investigate how the expert and novice ESL raters differ, in terms of their deep structure of knowledge in assessing students' written work. This is done through the use of cognitive task analysis (CTA). CTA is used to tap the knowledge states raters use when they assess writing. Verbal protocol analysis (VPA), one of the methods in CTA is used to elicit behaviours that manifest this knowledge. Through verbal protocol analysis, the raters verbalized their thoughts as they embark on the task of assessing and giving feedback on students' writing. A verbal protocol coding scheme was also developed to identify the raters' lines of reasoning. These lines of reasoning were adapted into a mental model that could be used in any problem-solving task involving assessing writing. The trialling of the mental mode in phase two focused on how the novice raters can be trained to be more sensitive to assessing operations of the expert raters that are captured in the model. It is hoped

that this awareness will enable them to be more effective in assessing and giving feedback to their students.

1.5   Research Objectives

In line with the aim of this study discussed earlier, the specific objectives of this study are to:

1.   identify the knowledge states and conceptual operators used by both the expert and novice ESL raters in assessing and giving feedback on students' writing;

2.   identify the expert and novice raters' line of reasoning to represent the knowledge states and conceptual operators they used in assessing and giving feedback on students' writing

3.   investigate how the expert raters' line of reasoning can be interpreted in the form of a mental model that can be used by novice raters in assessing and giving feedback on students' writing.

4.   examine how the novice raters approximate the expert raters in assessment behaviour training based on the mental model of the expert raters.

1.6   Research Questions

The research questions addressed in this study are:

1.   What are the knowledge states used by the expert and novice raters in assessing and giving feedback on students' writing?

2.   What are the conceptual operators used by the expert and novice raters in assessing and giving feedback on students' writing?

3.   How does the expert raters' line of reasoning differ from the one of

novice raters in representing the knowledge states and conceptual operators they use in assessing and giving feedback on students' writing?

4.   How can the expert raters' line of reasoning be interpreted in the form of a mental model that can be used to help novice raters in assessing and giving feedback on students' writing?

5.   How can the novice raters approximate the expert raters in assessment behaviour through training based on the mental model of the expert raters?

1.7   Significance of the Study

The study can possibly benefit educators in Malaysia in many ways. Firstly, it will provide a documented research on how an expert rater and a novice rater differ in the task of assessing ESL students' writing through cognitive task analysis. So far, the researcher has yet to come across any study that use the similar alternative approach to understand how an expert teacher and a novice teacher will assess their students' written work although verbal protocols analysis or think-aloud protocols have been extensively used to investigate, and build models of, essay rating processes in second-language (L2) context (Barkaoui, 2011). The researcher hopes to shed more light on the issue of teacher response to ESL composition.

Secondly, the expert rater mental model that is developed through the research may be useful to help novice raters to acquire the skill in assessing and giving feedback, like expert raters. Thus, the research can be used by teacher trainers to equip their understanding on how the expert teachers differ from the novice teachers in marking and assessing writing and with this, they may be able take the necessary steps to help

teacher trainees in acquiring the necessary skills to match that of an expert teacher. Consequently, this will benefit students as they will be able to get quality assessment and feedback on their writing from their teachers.

Thirdly, the study will provide interested parties with a comprehensive description of an alternative approach to understanding how the cognitive process of the expert and novice ESL raters can be analyzed while doing the problem solving task – through cognitive task analysis. This method is analyzed in depth as it is aimed at understanding how an expert ESL teacher and a novice teacher respond to the task of assessing and giving feedback on students' writing. According to Redding (1995), cognitive task analysis will enable teachers to gain insight on how to develop a mental model to be used in their practice, and be effective in their giving feedback on the written work by their students. Furthermore, this approach might also be useful to gain insight into other related fields in ESL if the findings of this study yield significant success.

1.8 Limitations of the Study

This research is exploratory in nature, employing qualitative method in its investigation of the research questions. As such, the researcher acknowledges the following limitation:

This research was carried out with a few research participants (eight participants) and with the absence of psychometric data – data related to the measurement of mental abilities and qualities. The researcher's aim is not to arrive at a set of prepositions that are valid for or applicable to the larger population of teachers. Thus the results cannot be possibly used to generalize ESL teachers' practice in the wider perspective. This

study is aimed at gaining insight and presenting an accurate and faithful portrayal of the practice amongst ESL teachers and teacher educators, especially those whom the researcher has defined to be expert and novice raters.

Subjectivity has to be recognised and accommodated in a definition of validity in any research on human being. Subjectivity here refers to the researcher's as well as the research participants' perception and point of views. In order to validate and verify an observation or interpretation, the researcher should not seek to protect himself from subjectivity. Instead, he should recognise his own subjectivity and seek congruencies between his subjective interpretation and that of the researched. As subjectivity is recognised and accepted as inevitable, the relationships that the researcher has established with the research participants would undoubtedly influence access to data interpretation and conclusion would not be taken at face value. As a result, the researcher's own role at the different stages of the study is accounted for adequately so that the reader may be informed of the perspective that is being adopted.

The materials for analysis by the expert and novice raters are limited to only two essays written by students, which consist of an essay each for the two different proficiency levels of the students (moderate and low proficiency level). Due to this, the exercise could not be considered an exhaustive one.

Finally, the analysis of the novice raters' perception of the training workshop may yield findings that may or may not give some indications of the feasibility of using the expert rater (ER) mental model in training. The training is just an initial examination of the feasibility of using this mental model to help the novice raters acquire the skills

needed in assessing and giving feedback on students' written work. Therefore, it may not be considered conclusive of its usefulness.

1.9   Definition of Terms

This section presents the operational definition of terms used in the context of this study.

1.9.1   Writing refers to the complex cognitive skill, which requires appropriate cognitive strategies, intellectual skills, verbal information as well as appropriate motivation (Tierney et al, 1989). This cognitive skill depicts students' actual performance which will be subjected to the raters' assessment.

1.9.2   An assessment, based on the context of this study, involves the means of obtaining information about students' abilities, knowledge, understanding attainments or attitudes (Grabe & Kaplan, 1998). An assignment in writing, for examples, will be helpful in assessing students' ability in and understanding of the assigned activity.

1.9.3   A mental model refers to a functional abstraction about a task given to raters which provides a deductive framework for assessing and giving feedback. It contains and integrates conceptual knowledge, procedural knowledge, decision-making skills for reasoning, and strategies for assessing and giving feedback on students' writing. In this study, a mental model is constructed based on the subjects' line of reasoning. The line of reasoning (LoR) is "a reasoning artifact that represents a complex set of related pathways of thought bound together" (Hassebrock and Prietula, 1992, p. 630). The knowledge content of a LoR serves to discriminate expertise as well as individual differences between the expert and novice raters.

1.9.5 **Feedback** in this study refers to the evaluative comments made by the raters as they verbalise their thoughts during the think-aloud problem solving task of assessing and giving feedback on students' writing especially on the form and content. It could be also in the form of correction symbols to indicate errors in the form and content of the students' writing. The feedbacks given to students' writing are not conveyed to the students for their learning process as the study only focused on how the expert raters differ from the novice raters in terms of how they assessed writing based on the knowledge states (elements of good writing) and the conceptual operators (cognitive processes) used.

1.9.6 **A conceptual operation** refers to an inferred cognitive process which modifies (adds, eliminates) existing or currently active knowledge states and produces new, active knowledge states (Hassebrock and Prietula, 1992). In response to a specific data cue, a given segment of verbal protocol, which constitute of one or more knowledge states and a conceptual operation, will produce the associated knowledge state or states. Further explanation of the conceptual operators used in this study is presented in sub-section 3.8.1(b).

1.9.5 **The knowledge state** is a type of protocol representation which identifies units of writing knowledge that will be used by the expert and novice ESL teachers or raters in this study. This includes their knowledge of clear writing, and evaluating and assessing skills needed in the task of rating and assessing writing. Writing in a specific language calls for observance to text conventions of the particular language. Among the important elements of knowledge states which contribute to clear writing

in English, which are discussed further in sub-section 3.8.1(a), are categorised into five divisions as follows:

 (a) Grammar:
   • grammaticality,
 (b) Mechanics:
   • spelling
   • punctuation,
 (c) Content:
   • clarity,
   • completeness,
   • exemplification,
   • non-English terms' equivalents,
   • avoidance of translation,
   • reasonable length,
   • wordiness
 (d) Organisation
   • central idea of text,
   • development of paragraphs,
   • use of discourse markers,
   • cohesion,
   • coherence,
 (e) Vocabulary
   • choice of words,
   • introduction of key terms, concepts, and individuals,

1.9.6 **The expert raters** in this study were graduate ESL teachers who had at least ten years of teaching experience in the English subject and were qualified raters for the SPM (*Sijil Pelajaran Malaysia* or Malaysian Certificate of Education) English 10 – Paper Two examination. These raters were specially trained by the Malaysian Examination Syndicate (or *Lembaga Peperiksaan Malaysia)* to mark the English Paper Two in the SPM examination. The characteristics of expert raters in this study is consistent with the definition given by Erisson and Charness (1994), that an expert refers to a person with special skills and knowledge acquired through experience, rather than inherent talent.

1.9.7 **The novice raters** refer to beginning ESL teachers in their first three years of teaching appointment after completing teacher preparation program. These

beginning ESL teachers were all teaching in the secondary schools. They had either completed the Postgraduate Education Course (*Kursus Perguruan Lepasan Ijazah or KPLI),* which is the basic requirement for teaching in the secondary schools, or those who had graduated from the education program which was carried out by the faculties or centres of Education in local public universities (MOEM, 2001).

1.9.8   Malaysian Certificate of Education

Malaysian Certificate of Education (MCE) or *Sijil Pelajaran Malaysia* (SPM) examination is a national examination taken by all fifth form students in Malaysia, which is equivalent to the British General Certificate of Secondary Education (GCSE). It is set and examined by the national examination board, also known as the Malaysian Examination Syndicate or *Lembaga Peperiksaan Malaysia.* After eleven years of schooling (six year at the primary level and five years at the secondary level), a student will sit for SPM. Passing the SPM is important to decide a student's education direction after that – either to go for a matriculation program, a pre-university foundation program, a diploma program or continue study at Form 6 level and later sit for High School Certificates (HSC) or *Sijil Tinggi Pelajaran Malaysia* (STPM) examination. The SPM English paper, which is the focus of this study, is separately graded by the national examination board and University of Cambridge Local Examinations Syndicate (UCLES), and both grades will be displayed on the statement slip. On the official SPM certificate, only the national examination board's grade is listed (MOEM, 2001).

1.10   Chapter Summary

Section 1.1 and 1.2 of this chapter discussed and provided the introduction and background of the study. Section 1.3 presented the statement of the problem, stressing

on the importance for ESL teachers to assess their students' writing and provide immediate feedback to ensure that the students progress in their learning process. Section 1.4 justified the need for the study especially on how it would possibly benefit educators in Malaysia, while section 1.5 gave the purpose of the study. Section 1.6 and 1.7 discussed the research objectives and the research questions to be answered in the study respectively. Section 1.8 touched on the limitations of the study. Operational definitions of some important terms used in this study were given in section 1.9. However, some terms are best dealt with in the body of text relevant for its fuller explanations. The chapter ends with section 1.10 which gives a summarized outline for the whole chapter. The next chapter will present and discuss the review of related literatures pertaining to the theoretical framework, variables and methodology of this study.