



UNIVERSITI PUTRA MALAYSIA

***THE RELATIONSHIP BETWEEN LANGUAGE PROFICIENCY,
METACOGNITIVE AWARENESS, CRITICAL THINKING DISPOSITION
AND CRITICAL READING DISPOSITION AND CRITICAL READING
ABILITY AMONG MALAYSIAN ESL UNDERGRADUATE***

ZUHANA MOHD ZIN

FBMK 2014 24



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By

ZUHANA MOHD ZIN

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,
in Fulfilment of the Requirement for the Degree of Doctor of Philosophy**

April 2014

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DEDICATION

To my husband Sean,
my parents Hj Mohd Zin and Hjh Madlishah
and my children Deena and Efan



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the Degree of Doctor of Philosophy

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April 2014

Chairman: Wong Bee Eng, PhD

Faculty: Faculty of Modern Languages and Communication

This study explored the influence of language proficiency, metacognitive awareness and dispositional attributes in critical thinking and reading on critical reading ability among Malaysian ESL learners. The participants were 295 ESL students. This study adopted a mixed method design in that a correlational analysis was conducted to investigate the relationship between the variables, and a text analysis was conducted to triangulate the findings of the students' critical thinking and reading dispositions with the critical reading skills. This study utilised Oxford Proficiency Test (OPT), Metacognitive Awareness and Second Language Reading (MA), California Critical Thinking Disposition Inventory (CCTDI), Critical Thinking Disposition Inventory (CTDI) and Critical Reading Comprehension Test (CRCT).

The results of the quantitative analysis indicated that the level of the students' critical reading skills ranged between poor to average. They students lacked the skills to perform in reading and thinking skills that measure evaluation and analysis ability. Further, the levels of their overall critical thinking and reading dispositions, and metacognitive awareness were average. The correlational and the analysis showed that language proficiency was the factor that related and predicted the students' ability to read critically. In the qualitative method, the students' written responses to the open-ended comprehension questions in the CRCT were analysed according to identified themes of critical reading skills: understanding, analysis and evaluation. Even though critical thinking and reading dispositions were not significantly related to critical reading skills, a consistent thinking and behavioral patterns were identified among the students in their written responses to the comprehension questions. They evidently lack the reasoning and inference thinking skills.

It can be concluded that they also lacked the suspending judgment and questioning attitude when they read. In addition, the analysis of the written responses indicated that the students were not able to metacognitively aware of the strategy to repair comprehension failure during reading. The findings of the study showed the students were less able to read critically and their ability was significantly related to language proficiency in L2. The findings of the written responses also indicated that critical thinking and reading dispositions played a part in contributing to their poor critical reading ability.

The students' low level of proficiency in English could have contributed to the overall findings of the study particularly to poor performance in the CRCT because most of the students in the study were represented by low proficiency students. The results of the study have implications for the reading instructions among ESL learners in Malaysia in that teachers and student teachers alike need to be aware of the factors and provide explicit critical thinking and reading dispositions to the students.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

HUBUNGAN ANTARA PENGUASAAN BAHASA, KESEDARAN METAKOGNITIF, KECENDERUNGAN PEMIKIRAN KRITIS DAN KECENDERUNGAN MEMBACA DENGAN KRITIS DAN KEMAHIRAN MEMBACA SECARA KRITIS DI KALANGAN PELAJAR BAHASA INGGERIS SEBAGAI BAHASA KEDUA DI MALAYSIA.

Oleh

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Kajian ini meneroka pengaruh kebolehan membaca secara kritis ke atas penguasaan bahasa, kesedaran metakognitif dan sifat-sifat kecenderungan dalam pemikiran kritis di kalangan pelajar Malaysia yang menguasai bahasa Inggeris sebagai bahasa kedua (ESL). Dua ratus sembilan puluh lima pelajar mengambil bahagian dalam kajian ini. Kajian ini menggunakan kaedah penyelidikan campuran dengan menjalankan ujian korelasi bagi menyiasat hubungan antara pembolehubah-pembolehubah. Selain itu, analisa dokumen juga telah dilakukan bagi mengenalpasti hubungan antara hasil pemikiran kritis pelajar dan kecenderungan membaca dengan kemahiran membaca secara kritis. Kajian ini menggunakan beberapa ujian dan inventori seperti *Oxford Proficiency Test (OPT)*, *Metacognitive Awareness and Second Language Reading (MA)*, *California Critical Thinking Disposition Inventory (CCTDI)*, *Critical Thinking Disposition Inventory (CTDI)* dan *Critical Reading Comprehension Test (CRCT)*.

Dapatan dari analisa kuantitatif menunjukkan tahap pemikiran kritis pelajar berada dari paras lemah ke sederhana. Pelajar ini kurang berkemampuan dalam kemahiran yang memerlukan mereka menilai dan menganalisa. Selanjutnya, tahap keseluruhan kemahiran pemikiran kritis dan kecenderungan membaca dan kesedaran metakognitif mereka adalah sederhana. Analisa korelasi menunjukkan bahawa penguasaan bahasa adalah faktor yang berkaitan dan yang dapat meramalkan kebolehan pelajar membaca secara kritis. Dalam kaedah penyelidikan kualitatif, respon pelajar kepada soalan pemahaman terbuka yang terkandung dalam CRCT telah dianalisa mengikut tema kemahiran membaca secara kritis yang dikenalpasti iaitu penilaian, menganalisa dan pemahaman. Walaupun pemikiran kritis dan kecenderungan membaca tidak mempunyai hubungan penting dengan kemahiran membaca secara kritis, satu corak tabiat dan pemikiran yang konsisten dapat dikenalpasti di kalangan pelajar. Secara jelas mereka didapati kurang mahir di dalam pemikiran berasional dan membuat kesimpulan. Mereka juga didapati kurang bersikap menyoyal dan membuat andaian ketika membaca.

Tahap kemahiran pelajar bahasa Inggeris yang rendah mungkin telah menyumbang kepada dapatan keseluruhan kajian ini, terutamanya, kepada pencapaian mereka yang rendah di dalam CRCT kerana kebanyakan pelajar di dalam kajian ini diwakili oleh

mereka yang rendah kemahirannya di dalam Bahasa Inggeris. Dapatan ini, pada takat yang tertentu, telah menyumbang kepada pencapaian mereka yang mengecewakan dalam ujian membaca secara kritis. Analisa respon bertulis pelajar juga menunjukkan mereka tidak berkemampuan untuk berstrategi secara metakognitif untuk memulihkan kelemahan pemahaman mereka apabila mereka membaca secara kritis. Dapatan kajian ini telah menunjukkan bahawa pelajar ini kurang berkemampuan untuk membaca secara kritis dan pencapaian mereka mempunyai hubungan yang penting dengan penguasaan bahasa kedua. Dapatan dari analisa respon bertulis pelajar juga menunjukkan bahawa pemikiran kritis dan kecenderungan membaca memainkan peranan dalam menyumbang kepada pencapaian pembacaan kritis mereka yang lemah. Dapatan kajian ini memberi implikasi kepada pengajaran pembacaan di kalangan pelajar ESL di Malaysia. Guru/tenaga pengajar dan pelajar guru perlu memberi pendedahan terhadap kecenderungan untuk memikir dan membaca secara kritis.



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I certify that a Thesis Examination Committee has met on 3 April 2014 to conduct the final examination of Zuhana Mohd Zin on her thesis entitled The Relationship between language proficiency, metacognitive awareness, critical thinking disposition, critical reading disposition, and critical reading ability among Malaysian ESL undergraduates in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the degree of Doctor Philosophy of English Language Studies.

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LIST OF ABBREVIATIONS

CCTDI	: California Critical Thinking Disposition Inventory
CCTST	: Critical Thinking Skills Test
CLEV	: Checklist for Educational View
CRCT	: Critical Reading Comprehension Test
CT	: Critical Thinking
CTDI	: Critical Thinking Disposition Inventory
DV	: Critical Reading Ability
EFL	: English as Foreign Language
EMI	: Engagement, Maturity and Innovativeness
ESL	: English as a Second Language
IELTS	: International English Language Test System
IVs	: Independent Variables
L1	: First Language
L2	: Second Language
LP	: Language Proficiency
M	: Mean Score
MA	: Metacognitive Awareness
MARSI	: Metacognitive Awareness of Reading Strategies Inventory
MRA	: Metacognitive Regressions Analysis
MUET	: Malaysian University English Test
OPT	: Oxford Placement Test
QUAL	: Qualitative
QUAN	: Quantitative
R	: Regression
SD	: Standard Deviation
SI	: Scriptally Implicit
TE	: Textually Explicit
TI	: Textually Implicit
TOEFL	: Test of English as a Foreign Language
UF-CTS	: University of Florida Critical Thinking Skill
UF-EMI	: University of Florida Engagement, Maturity and Innovativeness
UTM	: University Teknologi Malaysia
WMC	: Working Memory Capacity

CHAPTER 1

INTRODUCTION

This chapter presents the background of the present study and a detailed presentation of the theoretical perspectives that underpin study. This chapter also sets out the research problem and research questions that this study seeks to address, and discusses the significance of the study. Finally, the definition of key terms and an overview of the organization of the thesis are provided.

1.1 Background to the study

The advent of the Internet has enabled us to live in an information rich era. It has changed people's lives in a complex and fundamental way socially, economically and politically (Luke & Elkins, 2002). In this digital age we are living in, we are literally accessible to a wealth of information at our fingertips. Our youth today is constantly engaged in different forms of media technology: computers, televisions, iPod, video games and tablets to name a few. It is due to these new forms of media technology that have permeated our lives that critical literacy has become one of the most important skills for the 21st century citizen to acquire in order to keep pace with the technological advancement that is rapidly taking place in the world today. As succinctly described by Halpern, "If we cannot think intelligently about the myriad issues that confront us, then we are in danger of having all the answers, but still not knowing what they mean" (1997, p.3). Thus, literacy developments need to be transformed from basic technical and functional skills to more social-based literacy practices that are applicable to students' future social and working life (Cook-Gumperz, 1986; Luke & Elkins, 2002; New London Group, 1996).

Literacy researchers highlight the importance of literacy developments (reading and writing proficiency) to enable academic success and to prepare students for their future undertakings in the workplace (Conley & Wise, 2011; Ippolito, Steele & Samson, 2008). This can be done through incorporation of dual abilities that include 'knowing to learn and knowing how to think clearly' (Halpern, 1998, p. 450). Thus, the ultimate aim of literacy instruction and practice is to enable readers to function personally and socially in their lives after school (Purcell-Gates, 2004). The impact is more critical on college adolescent readers who are required to spend a large amount of time reading conventional and electronic text representations extensively (Greenleaf, Schoenbach, Cziko & Muller, 2008). Students need a toolkit to guard them from irresponsible writings and to prevent them from being easily influenced by authors whose writings are, more often than not, motivated by different purposes, goals, and personal agenda.

In light of this concern, many educators have put greater emphasis on the need to promote critical literacy, a kind of literacy practice that goes beyond literal level comprehension, that is involving evaluation and analysis of text (MacLaughlin & DeVoogd, 2004). Critical literacy is deemed as an effective means to provide empowerment or ownership to readers (Fagan, 1989). In fact, a report in literacy research claims that critical reading should be a hot topic in literacy research (Cassidy, Valadez, Carrett & Barrera, 2010). This concern arises because text is never neutral (Fairclough, 2003) and this undoubtedly requires readers to analyze, evaluate and interpret what they hear and read (Templer, 2005). The term *critical literacy* is defined and understood in various ways.

Some researchers and theorists on reading view critical literacy from the social critical perspective which proposes literacy for social change by examining power relations and challenging the status quo that eventually translates into transformative social actions (Lanksher, Gee, Knobel & Searle, 2002; McLaren, 1988; Shor, 2009). Another group of researchers view critical literacy as high-level comprehension with the application of higher-order thinking processes to comprehend text and discourses that goes beyond surface meaning (Beck, 1989; Fisher, 2001; Langer, 1987). It is this view that the present study adopts. Thus, in this study, the term *literacy* which generally refers to reading and writing proficiency solely, refers to the reading aspects of literacy that focuses on critical reading ability.

Reading activities that emphasize on accurate and fluent decoding skills are increasingly seen as inadequate to prepare college and university students for real world situations (Halpern, 1998; Pandian, 2008; Steven & Bean, 2007). Reading should move beyond the text. It is a process that requires readers to look at text with critical eyes and evaluative minds. In Malaysia, critical literacy, as a field in education, has created a lot of interest among educators and researchers in the last few years. This is in part due to the key thrusts of the Malaysian Higher Education Action Plan of 2011-2015 (MoHE, 2011) which are formulated with the aim of producing first class human capital, employable graduate and knowledgeable workers. To achieve the aim of the action plan developed by the Ministry of Higher Education (2011), critical thinking and critical reading are undoubtedly the skills that can aid to realize and achieve the objectives of this plan. This will in turn help to guarantee employability (Gee, 2007), and qualities required of a responsible citizen in a global society (Shor, 2009).

Producing first class human capital is in accord with the rising demands for knowledge workers who are marketable (Gee, 2007), and knowledgeable with efficient critical thinking abilities (Halpern, 1997; Stupnisky, Renaud, Daniels, Haynes & Perry, 2008)

and who are able to solve problems creatively and collaboratively (Ramlee & Abu, 2009; see also Ordonez & Maclean, 2007 for a review). Critical literacy serves as a toolkit when reading the world (Luke & Elkins, 2002; Morgan & Ramanathan, 2005). Therefore, critical literacy could be the answer to the illiteracy conundrum among Malaysian university learners. Illiteracy in this context does not mean the inability to read or decode words. Rather, it refers to the readers' inability to make use their reading ability to make sense or construct meaningful understanding of the reading text in order to function successfully in the society (Bartu, 2001; Freire & Mecdado, 1987; Manzo, 2000).

Thus far, the discussion on critical reading practices suggests that the practices take place in the students' first language (L1). The focus of this study is on learners in the English as a second language (ESL) classroom. Reading research that focuses on ESL learners has become increasingly important due to the rise of the English language as a global language that has necessitated the need for proficient readers of English in order to raise literacy standards among many ESL learners who are required to interpret any information (Warschauer, 2000). This is achieved through English for Academic Programs (EAP) which offer academic reading in most universities and colleges. One of the central goals of AEP programs in ESL classrooms is to help students to develop academic reading and thinking strategies (Shih, 1992; Uso-Juan, 2006) such as reading for meaning which involves higher level text comprehension (Nassaji, 2003) and critical literacy (Pennycook, 1996). ESL classrooms have been one of the avenues to provide critical literacy instruction (Comber & Simpson, 2001). In Malaysia, academic reading is introduced in the ESL classrooms in order to improve the students' academic reading skills. Therefore, there is a need for a study to find the factors that can explain their critical reading skills. Researchers in second language (L2) reading have consistently proven that two major factors that contribute to comprehension performance among L2 learners are L2 linguistic knowledge (Bernhardt & Kamil, 1995; Guo & Roehrig, 2011; Taillefer, 1996; van Gelderen, Schoonen, Stoel, Gloopper & Hulstjin, 2007; Yamashita, 2002) and metacognition or specifically metacognitive awareness (Brown, 1980; Brown, Armbuster & Baker, 1986; Carrell, 1989). In the context of critical reading ability, factors that come into play include critical thinking (CT) skills and critical thinking dispositions (Ennis, 1987; Ennis & Norris, 1990; Halpern, 1996; Perkins, Jay & Tishman, 1993). The manner in which these unique factors are inextricably connected to each other in producing good critical readers among ESL learners is indeed a very pertinent issue to explore.

1.2 Statement of the problem

The emphasis on enhancing critical reading among undergraduates is based on the argument that basic skills and information processing are no longer sufficient to prepare them for the work place (Luke, 1995). One of the major concerns among reading researchers, either in the L1 or L2, is the students' performance in academic literacy that require them to evaluate and analyze information contained in the texts they encounter every day. This is because, in formal settings such as in academic and working environments, students and workers are constantly required to synthesize, evaluate, interpret and selectively use the information in texts they encounter. One of the major issues in the Malaysian context is the many claims by many educators that most university students are often labeled as lacking in their ability to think and read critically (Crismore, 2000; Koo, 2003) and, therefore, are not prepared to engage in demanding reading tasks required of them (Koo, 2011; 2008, 2003; Nambiar, 2007; Pandian, 2008; Thang & Azarina, 2008). However, these claims are largely based on anecdotal experience and observations. These claims need to be supported by empirical evidence.

In light of the unfavourable claim on the level of Malaysian university students' critical reading ability, there has been a continuous call for critical literacy development in the Malaysian education curriculum. The need for critical literacy development in education settings would undoubtedly call for the designing of a comprehensive and detailed critical literacy curriculum. This would give and has given prominence to reading instruction that can potentially develop good critical readers (Koo, 2011, 2010; Nambiar, 2007; Pandian, 2008). However, the critical reading pedagogies adopted in the reading classrooms need to be supported by sound empirical studies that can inform the policy makers and curriculum designers to meet the critical thinking and critical reading educational objectives. In this, many studies addressing critical reading abilities conducted in Malaysia have centred on critical reading strategies employed by schools and university students (see e.g. Koo, 2010; Nambiar, 2007; Suhailah Hussein, 2009; Veeravagu, Muthusamy, Marimuthu & Subrayam @ Michael, 2010) and critical reading pedagogies that should be adopted by reading teachers to enhance critical reading skills among the students (see e.g. Awg Kitot, Ahmad, & Ali Seman, 2010; Mat Daud & Husin, 2004; Nagappan, 2001; Pandian, 2006). While some studies have consistently found that some approaches of critical reading and thinking instruction such as inquiry teaching (Awg Kitot, Ahmad & Ali Seman, 2010), critical language awareness (Koo, 2010), and the use of teaching aids (Mat Daud & Husin, 2004) improve critical reading abilities among university students, the proposed critical thinking and reading strategies among ESL learners remain suggestive as the best methods are not supported by empirical evidence on the underlying contributing factors that can enhance critical awareness among Malaysian ESL readers. This suggests that even though the methods

were found to be successful in improving the students' critical thinking and reading ability, they remain pedagogically unsubstantiated.

Therefore, studies in critical reading skills should not only be limited to the use of strategies and pedagogical aspects. More studies that investigate factors that can best explain the students' critical reading ability are crucial. In the effort to produce empirical evidence of the students' critical reading ability, some relevant factors that contribute to successful L2 critical reading ability need to be investigated. The key factors such as the interplay of linguistic knowledge, background knowledge, metacognitive awareness, higher-order reading skills and affective factors are found to influence the ESL learners reading comprehension ability (Hudson, 2007). Reading researchers have consistently found that L2 linguistic knowledge or L2 learners' language proficiency (Bernhardt & Kamil, 1995; Carrell, 1991; Lee & Schallert, 1997; Yamashita, 2002) and metacognitive awareness (Brown, 1980; Brown, Armbruster & Baker, 1986; Carrell, 1989; McKeown & Beck, 2009) play significant roles in L2 reading performance. However, these studies that look into the role of L2 language proficiency and metacognitive awareness mostly focus on general reading comprehension. As such, the roles of these factors, i.e. language proficiency, and metacognitive awareness in higher-order reading skills such as in critical reading skills have remained mostly unexplored, particularly in the Malaysian context.

In addition, theory in critical thinking posits that applying critical skills alone are insufficient to produce critical thinkers; another variable in developing critical framing is critical thinking disposition (Ennis, 1987; Ennis & Norris, 1990; Halpern, 1996, Perkins, Jay & Tishman, 1993). The ability to apply these skills also involves the dispositional aspects of critical thinking (Ennis, 1995; Giancarlo & Facione, 2001) and reading (Kamsiah, 2003; Stupnisky, Renaud, Daniels, Hayness, & Perry, 2008). In this situation, readers do not only apply higher order thinking skills; they also need a strong willingness to be a reflective reader. While studies on critical thinking skills in the educational context abound, studies on critical thinking disposition have been limited to examining students' dispositional profiles among undergraduates (see Giancarlo, Blohm & Urdan, 2004; McBride, Xiang, & Wittenberg, 2001) and among nursing students (see Facione, Facione, & Sanchez, 1994; Miller, 2005; Wangensten, Johansson, Björkström, & Nordström, 2010; Yeh & Chen, 2003). Other studies have attempted to examine the relationship between critical thinking skills and dispositions (see Friedel, Irani, Rudd, Gallo, Eckhardt & Ricketts, 2008; Macpherson & Stanovich, 2007; Ricketts & Rudd, 2004; Taube; 1997; Zhang, 2003). However, these studies that look at the relationship between disposition and cognitive ability, unfortunately, had produced mixed results.

In the Malaysian educational context, as mentioned earlier, the emphasis of the studies on critical thinking and reading have centered on critical thinking skills. Studies that look at the role of dispositional aspects in critical thinking and critical reading have been minimal. The studies are limited to a qualitative study that investigated the processing strategies and critical thinking dispositions among Malaysian university students in a critical reading task (Afiza, 2005), as well as quantitative studies that examined the profile of critical thinking dispositional attributes of secondary school students (Kamisah, Lilia & Zanaton, 2003), and the relationship between critical thinking dispositional attributes and critical thinking learning approaches (Wan Sharazad, Wan Rafaei & Mariam, 2007). In addition, studies that looked at the contribution of the affective factor in language learning and other forms of achievement are predominantly studies that used correlational and experimental designs. It is argued that these methods are insufficient to account for their contributive effects to learning improvements and deficiencies, and also to the interdependence between the social and the cognitive approaches (Brown & White, 2010). As such, more studies that examine the dispositional aspects of critical thinking and critical reading of Malaysian students are crucial as the available studies are insufficient to explain the variability of the Malaysian students' inclinations in thinking critically. Therefore, this study is motivated by a lack of studies that look into the critical thinking and reading dispositional aspects among Asian learners, specifically Malaysian learners. Therefore, the present study would contribute invaluable information or knowledge on the beliefs of the binary or dichotomy between thinking and attitudinal styles between western and Asian learners. Thus, the findings on critical thinking dispositional attributes among Malaysian ESL learners would add to the body of knowledge of cross-cultural studies in L2 reading research. Ultimately, the investigation on the influence of these factors on critical reading skills would contribute to the body of knowledge in critical reading performance among ESL Malaysian learners.

1.3 Objectives of the study

Based on the problems identified in the earlier section, this study seeks to explore the role of language proficiency and metacognitive awareness in reading, as well as critical thinking and critical reading dispositions, in relation to critical reading ability of Malaysian ESL learners. The primary aims of this study are to investigate the critical reading skills, the factor that best predict critical reading skills and the underlying dispositional aspects of the readers that describe their critical reading skills. Therefore, the specific objectives of this study are to:

- i) examine the critical reading ability among the ESL Malaysian students,
- ii) identify and describe the students' critical reading skills,

- iii) identify and describe the students' critical reading dispositional attributes,
- iv) relate the students' critical reading dispositions with their critical thinking skills and critical reading skills, and
- v) examine the relationship between ESL readers' critical reading ability and their language proficiency, metacognitive awareness and critical reading and critical thinking disposition,
- vi) predict the contribution of language proficiency, metacognitive awareness, and critical thinking and critical reading dispositions to critical reading performance among Malaysian ESL learners.

1.4 Research questions

This study was conducted to gain understanding of the students' critical reading ability, critical thinking and critical reading dispositions and related factors that contribute to their critical reading ability. Thus, based on the objectives, the following questions are formulated for the study:

- i) What is the level of the ESL learners' critical reading ability?
- ii) What is the critical thinking and critical reading dispositional profile of the ESL learners?
- iii) What is the relationship between the students' level of critical reading skills, on the one hand, and their critical thinking and critical reading dispositions on the other?
- iv) Among the factors of language proficiency, metacognitive awareness, and critical thinking and critical reading dispositions, what is the best predictor of critical reading ability among the ESL learners?

1.5 Significance of the study

This study is significant for several reasons. Studies in critical reading skills are important as they are crucial for college readiness and future employment. A plethora of studies in the area of critical literacy in Malaysian classrooms have centered on related pedagogical aspects to enhance critical reading skills, for example the employment of reading strategies. The studies proposed various instructional techniques and methods to help enhance critical reading skills among university learners. However, the pedagogical aspects need to be based on empirical evidence of the factors that can best produce critical readers. Thus, there is a need for a study that specifically examines readers' critical reading ability in order to provide empirical evidence on the best predictors of critical reading ability among university ESL learners in Malaysia in order to guide the development of critical reading instructional framework for teachers. This is because it is important for reading teachers to have the knowledge of the variables that can best

predict the L2 readers' performance when reading a text critically. The reason for this belief is if teachers were more cognizant of the variables that best predict or influence critical reading ability, they would provide better instruction to the students in the reading classroom. One of the ways is to encourage the students to develop questioning attitude by asking relevant questions when reading a text.

Secondly, this study adopted another research design which is a mixed-method design that incorporated the correlational analysis with a qualitative analysis of the students' written responses which can give more insights into the students' dispositional attributes in thinking and reading. This design would provide a better perspective of the relationship between critical thinking skills and dispositions which were found lacking in the studies that investigated these variables merely through quantitative and qualitative approaches. This method was adopted as it could provide better insight into the students' ability to read critically and into their dispositional attributes in thinking and reading critically. The qualitative method was used to provide more understanding on the students' critical reading skills and disposition.

Finally, as mentioned earlier, the significant roles of language proficiency and metacognitive awareness in reading among L2 or ESL learners have been extensively studied. Findings from the studies conducted that examined these roles showed that students' language proficiency and metacognitive awareness contributed to efficient and successful reading performance. In the present study, these factors are further investigated in relation to critical reading skills in order to find out their influence on ESL learners' reading performance. Besides language proficiency and metacognitive awareness, this study also examined critical thinking and critical reading dispositional attributes as factors that potentially predict good critical readers. In relation to critical reading ability, these factors are not sufficiently studied among Malaysian students even though critical thinking theory (Ennis, 1987; Ennis & Norris, 1990; Halpern, 1996, Perkins, Jay & Tishman, 1993) posits that one's disposition to think and read critically is equally important for the successful acquisition of critical thinking and critical reading skills. The concomitant claims of the interdependence between critical thinking skills and dispositions need further investigation, in particular among students from different cultural and academic contexts.

1.6 Theoretical perspectives

This study is framed by sociocognitive perspectives that draw primarily on related concepts of situated cognition and cognitive theory. The works of Langer (1987), Langer, Bertolome, Vasque & Lucas (1990), Gee (2001), and Ruddell & Unrau (2004) largely underpin the conceptualization of the current study. The integration of cognitive

and social aspects which encompass broader perspectives of cognition, language, social interactions and culture play significant roles in knowledge and meaning construction process.

Sociocognitive perspectives, which draw heavily from cognitive psychology, posit that an individual's cognitive systems understand and make sense of the world through the understanding of and interactions with social contexts (Augoustinos, Walker, & Donaghue, 2006; Gee, 2001). Literacy is, then, viewed in a broader sense that incorporates reading and writing as ways of thinking (Langer, 1987; Larger, Bartolome, Vasque, & Lucas, 1990) and for meaning-making processes (Gee, 2000; 2001; Ruddell & Unrau, 2004). As Kern (2000) succinctly describes:

“Literacy is the use of socially-, historically-, and culturally-situated practices of creating and interpreting meaning through text. It entails at least a tacit awareness of the relationship between textual conventions and their context of use and, ideally, the ability to reflect critically on those relationships. Because it is purpose-sensitive, literacy is dynamic- not static- and variable across and within discourse communities and cultures. It draws on a wide range of cognitive abilities, on knowledge of written and spoken language, on knowledge of genres, and on cultural knowledge”. (p. 16)

Within this perspective, reading as a meaning-making process (interchangeably used with meaning construction process hereafter) that encompasses the process of thinking and making sense of the text. It goes beyond merely finding information or meaning of the words. The process of reading for meaning is further discussed in the following section.

1.6.1 Reading for meaning

Reading for meaning construction process is largely influenced by Vygotsky's view of literacy practices that is it is a higher mental function activity (Werstch, 1985). To further illustrate the notion of reading for meaning framed by this perspective, the process of reading is best viewed as constructive, dynamic and active (Kern, 2000; Langer, 1987). It involves the interplay of not only various executions of cognitive processes, but also requires active utilization of a reader's experience and knowledge which are shaped and constructed through everyday social activities and events (Brantmeier, 2003; Johns, 1997; Koda & Zehler, 2008), and contexts (Gee, 2001; Johns, 1997; Smagorinsky, 2001).

The underlying principle of this perspective is that reading for meaning construction process is inextricably linked to language as a means of thinking and acting upon the world (Gee, 2001). It involves unique functions of how language is used in spoken and written discourse (Kern, 2000). The primary aim of the process is to gain deep understanding of the language (words, phrases and sentences) of the text in order to reach the intended meaning of the author. Gee (2001) posits that meaning in language does not merely represent the proposition or propositional unit or idea unit in a sentence (representation of lexical and grammatical structures). Rather, it represents what Gee (2001) describes as “people’s experiences of situated action in the material and social world” (p. 715). The invaluable experiential knowledge which constitutes feelings, perceptions, actions and interactions that are stored in the mind or brain (i.e. schemata) are the elements that give meaning to language. The notion of schema is widely researched and established (Anderson & Pearson, 1984; Rumelhart, 1980). A plethora of studies on its facilitative role in reading comprehension particularly among L2 readers has helped guide many other research studies and reading practices (Anderson, 2004; Brantmeier, 2005; Hudson, 1982; Lee, 1986; Nassaji, 2002). However, knowledge that is stored in the mind is argued to be socially constructed and shaped (Norris & Phillips, 1987). Gee (2001) posits that the human mind is social in two ways. First, the social aspects are rooted in the nature of the mind itself that makes sense of the new information (data) by relating to the interaction with the more mature people (i.e. teachers or parents) and peers. Second, human thinking or cognition is a storehouse of experience gained from people, symbols, objects and technologies in various social contexts. They are essentially the representation of reality. These schemata instrumentally/ directly influence the integration of the new experience, gained through our reading, listening, writing and oral activity, with the old information in our memory to give meaning to the words, phrases and sentences that are situated in actual contexts of their use (Gee, 2001; 2000).

Hence, since cognition is socially shaped and contextualized, meaning that is embedded in language is not merely about facts. Rather, it is value-laden that allows different perspectives to be taken to challenge the meaning of it (Gee, 2001; Smagorinsky, 2001). Words do not have a single meaning. The meaning of a word is always contextualized (Grabe, 2009) and deeply situated in the action (see Gee, 2000; 2001, for more details on situated meaning). Comprehension of language fundamentally involves interpreting the meaning of it by relating to the context in which it occurs (Johns, 1997; Langer, Bartolome, Vasque & Lucas, 1990; Ruddell & Unrau, 2004; Smagorisky, 2011; 2001; Smith, 1985). In view of this, reading for meaning, by way of exercising one’s critical thinking, is always tied to the role of language primarily because the surface structure of language is never neutral (Fariclough, 2001; Gee, 2001). It is ambiguous (Smith, 1985) because the function of language is not about shunting information as facts (Gee, 2001).

The meaning of language is flexible, adaptable and changeable (Smith, 1985). It is, therefore, always open for interpretation.

The description of reading as a meaning construction process has led to an important question: what constitutes meaning construction? Firstly, the notion of comprehension shaped by the sociocognitive perspective emphasizes the role of reader as an agent to talk, think and read for meaning. Thus, the source of meaning in reading is when reader successfully creates a new text during reading engagement (Smagorinsky, 2001; Snow & Sweet, 2003). Construction of meaning lies in the creation of new knowledge from the transactional activity between the reader and text (Smagorinsky, 2001) or active collaboration between the two (Kern, 2000). However, it is important to note that these meanings which are constructed in readers' cognition are deeply rooted in their culture and social-historical experiences which surround them (Gee, 2000; Smagorinsky, 2001). This reflects the fundamental assumption that guides Vygotsky's theory of learning, that is "in order to understand the individual, one must first understand the social relations in which the individual exists" (Wertsch, 1985, p. 58). These elements have unconsciously conditioned readers and provided tools for them to be aware of the social construction of the discourse in the text which are, then, brought together during the creation of text interpretation.

In sum, the view of literacy explicated here underscores the confluence of reader, text and context variables. The significant roles of these variables, explained by Ruddell & Unrau's (2004) sociocognitive interactive reading model in the meaning-making process of L2 readers are further elaborated in Chapter 2 (section 2.1 & 2.2).

1.7 Definition of key terms

The following section presents the definitions of some key terms of the study: critical reading, critical thinking dispositions, metacognitive awareness and language proficiency.

1.7.1 Critical reading

Harris and Hodges (1995) define critical reading as "reading in which a questioning attitude, logical analysis, and inference are used to judge the worth of text according to an established standard" (p.108). In essence, critical reading is the ability to read a text beyond its literal meaning (Fisher, 2001), a process which requires an analytic mind to judge the value of the text (Thistlewaite, 1990) through which higher-order reading skills are utilized (Beck, 1989). These involve analysis, synthesis and evaluation (Flynn, 1989). It is reflective reading that involves the use of a set of critical thinking skills to

evaluate a text in order to comprehend the explicit and the implicit meaning of it. The critical reading ability in this study was measured by the Critical Reading Comprehension test (CRCT) which assessed the evaluative and analytical skills.

1.7.2 Critical reading dispositions

According to Philips and Norris (1987), the dispositions in reading critically include “tendencies to seek a clear statement of the thesis or question, to take into account the total situation, to seek alternatives, to take a position and to change it when the evidence and reasons are sufficient to do so and to remain open-minded” (p.295). The critical reading dispositional attributes of a reader refer to his or her willingness to persistently be open-minded, reflective, question the stance of the author, as well as evaluate the information based on sound evidence and reason when reading. These dispositional aspects were measured using the Critical Thinking Disposition Inventory (CTDI) by Kamsiah Abdullah (2003) which specifically measured the readers’ critical reading dispositions.

1.7.3 Critical thinking dispositions

Critical thinking dispositions refer to one’s inclination to utilize critical thinking skills (Giancarlo & Facione, 2001), behavioral tendencies to think critically (Perkins, Jay & Tishman, 1993) and characterological attitude to think critically (Facione, Sanchez, Facione & Gainen, 1995). The term critical thinking disposition thus generally refers to one’s inclination or willingness to use critical thinking skills in solving problems of any task at hand. These dispositional attributes were measured with the California Critical Thinking Disposition Inventory (CCTDI) (Facione & Facione, 1992).

1.7.4 Metacognitive awareness

Metacognition, as an essential component in reading comprehension and in thinking, is described as “one’s knowledge concerning one’s own cognitive processes and products or anything related to them” (Flavell, 1976, p. 232). Halpern (1998) describes it as “what we know about what we know” (p. 454) and Phakiti (2003) refers to it as “the notion about thinking about thinking” (p. 29). It essentially describes the cognitive processes which regulate and monitor one’s mental processing that can improve performance in reading comprehension and thinking. Carell’s Metacognitive Awareness and Second Language Reading questionnaire (1989) was used to examine the degree of metacognitive awareness of the L2 readers.

1.7.5 Language proficiency

Language proficiency, in this study, refers to English language proficiency. It refers to a learner's syntactic knowledge (Barnett, 1996), which essentially refers to one's knowledge of the grammar and one's ability to use the knowledge in reading tasks. The students' English proficiency level was assessed using the Oxford Placement Test (Allan, 1992) which has been extensively used to assess the level of English proficiency among ESL learners.

1.8 Organization of the thesis

Chapter 1 presents the background to the present study. In addition, it provides the statement of problem, the objectives, research questions and the significance of this study. A description of the theoretical perspectives upon which the study was framed is also included in this chapter. Finally, the definitions of key words for the study are provided.

Chapter 2 discusses the underlying cognitive and social aspects of reading that forms the conceptual framework of the study. It also provides a review of relevant current and past literature on skills and dispositional aspects of critical thinking and reading, metacognitive awareness in reading and L2 language proficiency in relation to L2 reading comprehension. Literature of related studies pertaining to quantitative and qualitative methods is also reviewed in this chapter.

Chapter 3 explains the methods that have been used for conducting the study and for analyzing the data obtained from the study. Firstly, this chapter describes the variables measured and provides diagrammatic illustration of the theoretical framework underpinning the present study. Secondly, it explains the mixed method design. This chapter also describes the participants, instruments for data collection and procedures in collecting the quantitative and qualitative data. Finally, this chapter provides a description of the data analysis procedures of both methods.

Chapter 4 presents the results and reports the discussion on the findings of the study to address the research questions constructed for the study. The results include the descriptive analysis of the survey questionnaires. Subsequently, the correlational and multiple regression analyses are presented. This chapter also presents the findings of the qualitative data through the document analysis of students' responses in the critical reading comprehension test. It also discusses the findings from the quantitative and qualitative analysis of the students' critical reading performance and the findings from the descriptive, correlation and regression analysis.

Chapter 5 summarizes the research findings, draws conclusion and suggests some implications drawn from the findings. Limitations of the study and suggestions for future research are also provided in this chapter.



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