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Vocabulary Size and Critical Academic Reading Ability of Secondary Students in Sabah

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ABSTRACT

English Language Learners' or ELLs reading comprehension of a text is affected by many factors. One of which is vocabulary knowledge. Several studies have shown that there is a direct link between vocabulary and reading comprehension. Although in the present study, students' comprehension, personal response and critical reading abilities were assessed, only the critical reading component is reported in this paper. While sizable studies have examined students' comprehension skills, little is known about the critical reading ability of secondary students, an important factor in students' college academic success. The purpose of the current study was threefold: (a) to investigate ELL secondary students' vocabulary level, (b) to gauge their critical academic reading ability, and (c) to determine the relationship between these two variables. Eighty-five participants from a public school in Kota Kinabalu, Sabah participated in the study. Receptive vocabulary test and an academic critical reading test were administered. Results showed that the vocabulary size of the students was associated with their critical academic abilities. The findings have pedagogical implications for educators.

Keywords: ELL learners; University students; Vocabulary size; critical reading; Critical academic abilities

INTRODUCTION

Existing literature has revealed that high school graduates entering college lack essential skills for academic success. One of the vital skills for academic success in the first language (L1) and second language (L2) environments is said to be reading. In the Malaysian context, often, reading is taught to meet three purposes: one is to read to improve students' language competence, such as strengthening the grammar; the other is to read to answer comprehension questions, and finally to pass examinations, which is the top priority. Often, teachers are most concerned with the right answers. Reading longer texts is rare, if not unlikely. Students are said to be underprepared in post-secondary education, particularly their reading skills (Hartman, 2001; Mendelman, 2007). Research has demonstrated that it takes a large pool of vocabulary to understand a text. In Malaysian schools, although vocabulary is one of the components in the English lessons, language skills receive more attention than the teaching of vocabulary (Tahir, Albakri, Adnan, & Karim, 2020). The next sections delineate vocabulary and critical reading in the ELL contexts.

VOCABULARY

The role of vocabulary in reading proficiency is complex. To understand text meaning, one must be able to decode the printed message (Adams, 2004; Alderson, 2000; Day & Bamford, 1998). The presence of high density of unknown words in a text may seriously hinder comprehension (Curtis, 1987; Nation, 2001). Fast and efficient word recognition, word encoding and lexical access are necessary for a higher level of meaning construction (Adams, 2004; Just & Carpenter, 1987; Lesgold & Perfetti, 1978). The main difference between skilled and less skilled readers lies in slower and inefficient lexical access and semantic processing (Bernhardt, 2005; Grabe & Stoller, 2002; Nassaji, 2003; Segalowitz, Poulsen, & Komoda,

1991). Several studies have revealed consistent correlations between vocabulary and comprehension (Laufer, 1992a, 1992b; Qian, 1999, 2002; Nation, 2001). Stahl (2003, p. 246) contends that studies from readability formulae have found that "the most important factor in determining the difficulty of a text is the difficulty of the words." Vocabulary size is thus a strong predictor of reading comprehension. Seminal studies by Laufer (1992) and Hirsh and Nation (1992) have attested that it took 3000-word families or 5000 individual words to read texts. Several studies have also found that vocabulary size of native speakers of English increases with age (Biemiller & Slonim, 2001; Coxhead, Nation, & Sim, 2015; Farkas & Beron, 2004).

Within the context of ELL research in reading, findings on the reading processes and vocabulary threshold have consistently indicated the importance of vocabulary knowledge in reading comprehension (Alderson, 2000; Bernhardt, 2005; Fukkink, Jan, & Annegien, 2005; Garcia 1991; Koda 1994, 2005; Laufer, 1997; Nation, 2001; Zhang, 2000). In the Malaysian context, a number of studies have shown that the vocabulary knowledge of Malaysian university students was way below the university threshold level (see Harji, Balakrishnan, Bhar, & Letchumanan, 2015; Mathai, Jamaian, & Nair, 2004; Wong, Lee, Fung, & Willibrord, 2019). Mokhtar et al. (2010) studied first-and second-year students from five diploma programmes in one Malaysian university. They found that these tertiary students failed to achieve the passing level of the vocabulary tests. Wong, Lee, Fung, and Willibrord's (2019) claim that Form five students have difficulties in the vocabulary test beyond 2000-level. All these studies indicate that a majority of university students in Malaysia do not have enough vocabulary knowledge and vocabulary size to use English as their second language.

The present study stems from our intuition that students lack the vocabulary to understand texts. Working with vocabulary size as a parameter may be useful for teachers to gauge students' knowledge of the word. Another aim was to determine ELL students' critical reading abilities and the relationship between students' vocabulary size and their critical reading abilities. The next section reviews critical reading in the ELL context.

CRITICAL READING

Literacy in the traditional sense is knowing how to read and write. However, academic literacy involves higher-order thinking such as conceptualising, inferring, inventing and evaluating (Scarcella, 2003). Academic literacies can be a significant barrier for students to progress at universities (Fleming & Stanway, 2014; Murray & Nallaya, 2014). According to Moore (2013), critical thinking is the core of university education and that disposition to think critically is indispensable to student's success in higher education. Critical reading, with its emphasis on logical analysis, has a positive correlation with critical thinking (Cervetti, Pardales, & Damico, 2001; Din, 2020; Elder & Paul, 2012). As opposed to functional reading, often focuses on decoding and comprehension (Paren & Wallace, 2016), critical reading goes beyond understanding. It requires interpretation and evaluation skills on the part of the readers to distinguish between facts and opinions, determine a writer's purpose and tone, make inferences and draw conclusions (Priozzi, 2003). Critical reading assesses the "quality of the case that has been made [by the writer]." Critical readers will examine whether the writer has sufficient evidence to warrant a claim or whether there is other information that has not been considered (Wallace & Wray, 2011, p. 9). Critical readers do not approach a text as a collection of sentences merely to understand its meaning literally; neither do they read without questioning the text (McLaughlin & DeVoogd, 2004). With contested knowledge, claims which are unsupported and unverified are unfounded assumptions (Hills, 2012). Simply put, critical reading is purposeful and reflective in comprehending, analysing, judging and evaluating the reading materials. The reader is required to respond intelligently to the writer

(Liu, 2019). Many scholars believe that critical reading does not naturally develop unless it is taught explicitly or frequently introduced by teachers (Cervetti et al., 2001; Fox & Alexandra, 2011; Paran & Wallace, 2016; Wallace, 2003; Wilson, 2016).

CRITICAL READING IN THE ELL CONTEXT

In the West, teachers face challenges teaching academic reading and writing to ELL learners (Maunsell, 2019). Some teachers avoid teaching academic English as ELL students struggle to develop higher-order reading and writing skills (Scarcella, 2002). Several studies in Malaysia have shown that Malaysian university students did not read critically. ELL students must go beyond the four basic language skills, particularly their understanding of thinking and reading critically (Wilson, 2016). That said, readers need first to comprehend what the authors have written and engaged with the intended meanings before examining the text. Reading critically is about understanding the ways a text is positioned and is working to position the readers (Janks, 2019). What Janks means is that texts are not neutral and understanding the text is essential to engage with the meanings the authors have to offer, "follow and engage with the writer's arguments" (p. 561). Janks urges readers to *interpellate* - interrupt the order and demand an explanation – the text by posing critical questions to explore critical perspectives on the issue in the text.

Many ELL university students are new to critical reading expected in higher education (Wilson, 2016). Most of these students come from backgrounds where the emphasis is on rote learning and memorisation (Dong, 2015). Others come from learning environments where opportunities and experiences that encourage critical thinking and critical reading are absent. Many reading courses in the ELL contexts place more emphasis on decoding, and even classes for advanced learners often assume that "reading is the comprehension of text" (Wallace, 2003, p.3). Often, reading is viewed as a set of skills.

In the ELL setting, Astan and Taman (2015) explored the correlation between vocabulary size and the three levels of reading comprehension, namely literal, inferential, and critical reading comprehension. Their findings revealed that vocabulary size was significantly correlated to these three levels of comprehension. Unlike Astan and Tamah (2013), we view inferential comprehension as a component of critical reading. Reading comprehension is the information students first obtained after reading a text, and this is what students need to achieve before critical reading. As mentioned previously, only the vocabulary and critical reading performance of the students were reported in this paper. We adapted Bloom's Taxonomy and viewed critical reading at three levels: Level 1 Analysis, Level 2 Synthesis and Level 3 Evaluation (see Table 2).

In a more recent study, Par (2018) reports that undergraduates in Indonesia have low critical reading ability, particularly in determining the main idea and purpose, making an inference, recognising the tone and concluding. He reiterates that students are "not well-trained" in critical reading courses (p. 89). Another study on university students' reading in Thailand also yielded similar results. ELLs did well in literal questions, but not critical questions that required them to evaluate (Khamkhong, 2018). We opine that taking a critical reading class for a semester at the university level is insufficient for undergraduates. One way to augment critical reading ability is to introduce critical reading to primary and secondary students. The sooner they are exposed to it, the better they grasp the importance of reading critically.

Like Indonesian students, Malaysian students have not been asked to evaluate texts or read and write as student critics while in secondary schools (Crismore, 2000). In their study, Zin, Wong and Rafik-Galea (2014) administered two critical reading comprehension tests on 295 university diploma students. The researchers claimed that Malaysian university diploma students have poor critical reading abilities. That said, unless teachers actively teach and

promote critical reading, it is improbable that ELL learners will read critically. Low critical reading is evident in the comprehension questions, which typically follow reading texts in ELL textbooks as a means of testing how far learners have understood the contents in the text. It is a process of information transfer rather than a vehicle for critical reading and learning.

Other studies on critical reading conducted in Malaysia also yielded the same results (e.g., Kaur, 2013; Kaur & Sidhu, 2013). Anuar and Sidhu (2017) used a questionnaire to determine students' readiness in critical reading and their findings indicated that postgraduates have moderate readiness in utilising critical academic reading skills. Employing a survey questionnaire to find out whether participants read critically likely understates the true extent of students' critical reading performance. Anuar and Sidhu's data collection could only inform them of their students' perceptions or assumptions pertaining to their critical reading readiness. Although several studies have been focused on critical reading ability of university students in Malaysia, little attention has been given to secondary school students.

THEORETICAL BASIS

The current work draws on schema theory which was introduced by educational psychologist Richard C. Anderson in 1977. Schema theory concerning reading, describes how readers use background knowledge to understand and learn from the text (Rumelhart, 1980). Within this theory, different types of schemata have been suggested; content, formal, cultural and linguistic (Carrell, 1984). Content schema is prior knowledge about the topic, a formal schema is concerned with awareness of the structure of the text and language schema is knowledge of the vocabulary and relationships of the words in a text. Language schema or linguistic schemata also describes readers' existing language proficiency in vocabulary and grammar. In relation to the role of vocabulary in reading, schema theory suggests that students with limited linguistic knowledge will find it difficult to decode and comprehend a text. As postulated by Carrel (1984), to comprehend a text in a second language, readers must first acquire certain linguistic proficiency. In this study, linguistic knowledge is operationalised as the number of English words students know (size), and it is measured through a series of vocabulary tests.

Critical literacy is another theoretical foundation in the present study. Critical literacy Theory (Luke, 2000; Comber, 2001, 2016) provides a critical stance toward reading. As previously mentioned, critical reading extends beyond comprehension and the four language skills. Looking through the lens of critical literacy theory facilitate understanding of the critical stance of literacy among ELL learners. In this study, critical literacy is conceptualised through performance in a critical reading task which requires students to perform analysis, synthesis and evaluation based on a text.

This study addressed the following research questions:

1. What results of the vocabulary size of the students do the Vocabulary Level Tests (VLT) give?
2. What results of the critical capabilities of the students does the Reading test give?
3. What is the relationship between vocabulary knowledge and critical reading ability of the students?

METHOD

DESIGN

The aim of the present study was three-fold: to investigate the size of students' vocabulary, to investigate students' critical reading ability and to determine the relationship between vocabulary size and the critical reading ability of Malaysian secondary school students.

PARTICIPANTS

The data from this study were collected from 85 secondary school students from a public school in Malaysia. Located in the capital city of Kota Kinabalu, the participants in this school can be best represented the general population of Form 5 students from the Arts and Science stream. The participants were 17 years old, and they were homogeneous with respect to their mother tongue and backgrounds. These criteria were important in the sample selection since the current study aimed to gauge secondary students' vocabulary level and critical reading ability in relation to college or university preparedness. Written informed consent was obtained from headteachers, and the principal. Verbal assent was also obtained from the students.

INSTRUMENTS

Two instruments—a reading test and a vocabulary test--were used to collect the data in this study.

READING TEST

The reading test, which comprised comprehension questions, personal response questions and critical reading questions, was developed by the researchers. A text titled "Social media and Kids: Some benefits, some worries" was selected from American Academy of Pediatrics (March 28, 2011). This particular text was chosen because the subject on social media was appealing to secondary students, and most of them could relate to it. Additionally, the test was not to assess the scope of their knowledge. Hence a familiar topic was more relevant. The text was a 667-word taken from a website. The readability scoring of this text was 36 of the Flesch-Kincaid Reading Ease, indicating that it was the reading level of a first-year undergraduate student. The rationale of using a college-level text was to delve into the performance of these final-year secondary students who would be in transition to university. The reading scale, consisting 12 items was found to be reliable (α=.683). According to Ursachi, Horodnic and Zait (2015), as a general accepted rule, α of 0.6-0.7 indicates an acceptable level of reliability. Table 1 outlines the number of questions in the reading test. In the present study, only the critical reading component was reported.

TABLE 1. Types of questions

Type of questions	No. of questions
Comprehension	4
Personal Response	2
Critical Reading	6
Total	**12**

The critical reading test comprised six critical reading questions. Questions to identify the issue of the passage, the intended audience, and the author's purpose. Another three questions required students to give their opinion, draw a conclusion and make an inference. The construct of the reading test was a valid predictor of how well the students could answer the academic reading test. Furthermore, the question types in the reading test are also familiar

to students, implying that the students, to a certain degree, are cognizant of these types of questions at some point.

The cognitive domain of Bloom's Taxonomy is often adopted as an educational tool in teaching Critical Reading to English Language Learners or ELLs (e.g., Karlin, 1980; Paul, 1993; Surjosuseno & Watts, 1999). Table 3 shows the modified version of Bloom's Taxonomy to suit the ELL context of the present study.

TABLE 2. Critical Reading Adaptations of Bloom's Taxonomy

Level 1 - Analysis	**Level 2 - Synthesis**	**Level 3 - Evaluation**
Breaking down ideas into simpler parts & seeing how the parts relate	**Rearranging component ideas into a new whole**	**Making judgements based on evidence**
Q 1 Issue Q2 why do you think… Q3 Intended audience Q4 Author's purpose	Q5 drawing conclusion	Q6 making inferences

The three levels of critical reading arranged in ascending order are Level 1 Analysis, Level 2 Synthesis, and Level 3 Evaluation. Analysis is the lowest order in the critical reading hierarchy as it is a prerequisite for critical thinking ability. Analysing a reading text requires readers to break down the ideas from a text into smaller parts and find evidence to support generalisations. When synthesising, information is compiled together differently, and students are to propose alternative solutions, i.e., drawing conclusions. Finally, students evaluate based on evidence, and that is the highest order in critical reading.

VOCABULARY TEST

The Vocabulary Levels Tests or VLT (Nation 1990), which is among the best-known vocabulary measurement tools to date, was selected to determine the size of the participants' vocabulary. The VLT has been widely used to measure the students' range of vocabulary. Its reliability is reported to be high (Cronbach's alpha = .95 and Rasch reliability estimate = .97). Due to its well-documented reliability and high correlation with the reading comprehension section of the TOEFL, this test was used to provide an estimate of the number of words the participants knew. It was tailored for different levels (1000, 2000, 3000, 5000, and the 10,000-word level) plus a test developed solely to gauge the academic vocabulary of learners and not the size of their vocabulary. In this study, the VLT was used to measure students' lexical knowledge. A high score indicates good linguistic knowledge, while a low score indicates poor linguistic knowledge.

TABLE 3. Levels and number of words

Level	**Word Level**
1	2000
2	3000
3	5000
4	University Word Level (UWL)
5	10000

PROCEDURES

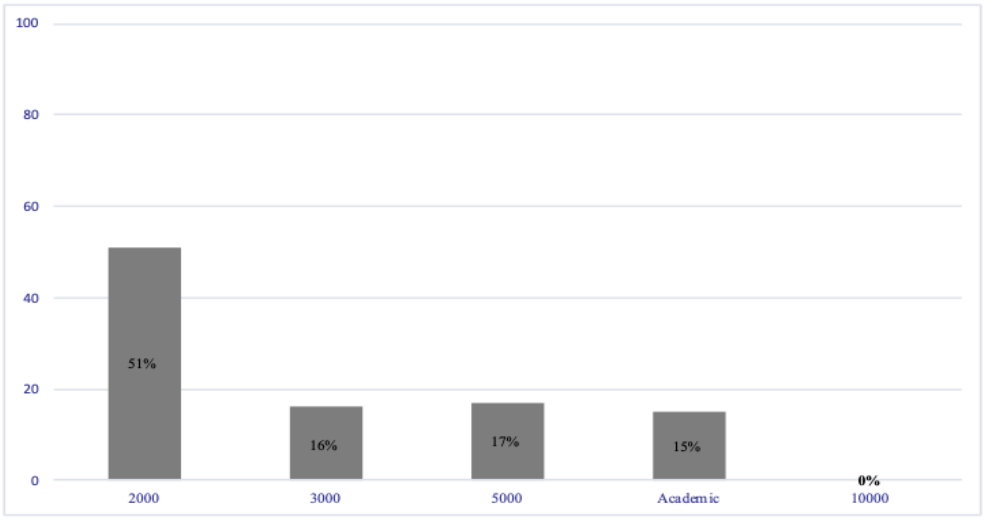
Two instruments were administered in a single testing session. The first part of the study was the reading test and the latter the Vocabulary Levels Tests (2000, 3000, 5000, academic level and 10000-word level test), which took 80 minutes in total.

ANALYSIS

Data were analysed using SPSS 22.0 programme to run descriptive and inferential statistics tests. Frequency distribution was carried out to determine students' level of vocabulary and their critical reading ability. Pearson product-moment correlation coefficient was computed to determine whether there was a significant relationship between participants' vocabulary size and reading test scores.

RESULTS

Research Question 1:
What results of the vocabulary size of the students do the Vocabulary Level Tests (VLT) give?



N=85

FIGURE 1. Pattern of mastery of the Vocabulary Level Tests

Figure 1 presents the mastery level of the receptive vocabulary test among the participants in the study. As can be seen, there is a stairstep pattern of mastery of the ascending frequency levels with 51% of students mastering the 2,000-word level and 16% of students mastering the 3000-word level. Only 17% of students achieved mastery level for the 5000-word level while 15% achieved mastery level for the academic vocabulary test. No one achieved mastery level in the 10,000-word level test. Generally, it can be concluded that most students have not mastered vocabulary proficiency beyond the 2000-word level.

Further analysis of students' vocabulary ability is shown in Table 4. Findings show that the 2000-level test ranged from 0 to 30, with a mean of 21.2 and a standard deviation of 7.9. Meanwhile, scores ranged from 0 to 29 for the 3000-level test and 0 to 29 for the 5000-level test. Lower mean scores were found for the academic level test, with scores ranging from 0 to 27. Finally, for the 10000-level test, scores ranged from 0 to 19 with a mean of 6 and a standard deviation of 4.7. As the level increases, students started having problem in answering the questions. The relatively low mean scores indicate that many students have not mastered the academic-level test. The most challenging level was the 10000-word level as echoed by the low mean scores. Students' vocabulary levels and size scores (see Table 4) decreased by levels, with lower mean scores and wider standard deviations for the Academic Word Level (AWL) (M=12, SD=8.5) and 10000 word-Level (M=6, SD=4.7). The minimum scores were consistent across all levels. Some students obtained full scores at Level 1 (2000 level).

TABLE 4. Students vocabulary test scores

	Minimum	Maximum	Maximum possible score	Mean	SD
2000 Level	0	30	30	21	7.9
3000 Level	0	29	30	15	8.5
5000 Level	0	29	30	14	8.0
Academic Level	0	27	30	12	8.5
10000 Level	0	19	30	6	4.7

N=85

Research Question 2
What results of the critical capabilities of the students does the Reading test give?

Figure 2 presents students' performance in all six critical reading questions. Nearly half of the students were unable to perform Level 1 of the critical reading questions such as determining the issue of the text, giving an opinion, determining the author's purpose of writing the text and author's intended audience. The failures increased at Level 2, which was 57.6%. The highest number of failures was 85.9% at Level 3, which required students to evaluate and make an inference.

Many students were unsuccessful in answering critical reading questions in this study. There was a consistent pattern of unsuccessful attempts reaching more than 50% for all the critical reading questions, especially evident for Critical Reading (L3) with 85.9% of students who were unable to answer the question correctly. Overall, the result suggests that students have difficulties in answering critical reading questions at levels 2 and 3.

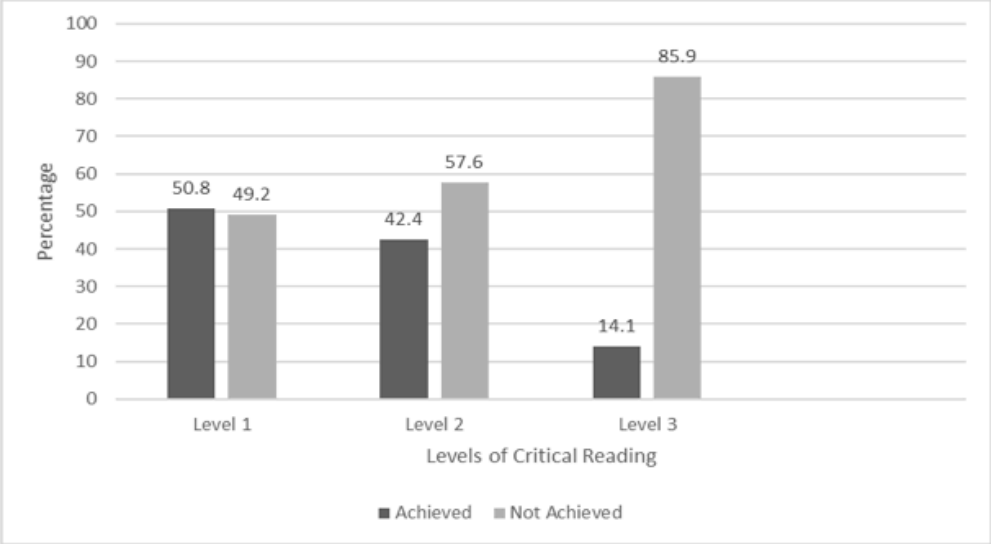


FIGURE 2. Students' ability in answering critical reading questions

Research Question 3:
What is the relationship between vocabulary knowledge and critical reading ability of the students?

Table 5 displays the relationship between vocabulary size of students and their critical reading ability. A Spearman's correlation test was run to assess the relationship between critical reading ability and vocabulary size using a sample of 85 participants. The findings show that there is some evidence of a relationship between vocabulary size and critical reading ability at Levels 1, 2 and 3. With regard to the relationship between vocabulary size and critical reading at Level 1, there was an indication of moderate but positive relationships which were statistically significant at Level 1 (Questions 1 and 4). Critical reading at Level 2 (i.e., Question 5) was

significantly correlated with all the vocabulary levels in the test. Meanwhile, a moderate correlation was found between vocabulary levels and critical reading at Level 3.

TABLE 5. correlation between vocabulary test and critical reading questions

	2000 Level	3000 Level	5000 Level	Academic Level	10000 Level
Critical Reading (L1)	.092	.105	.062	.133	.233*
Critical Reading (L1)	.161	.133	.200	.143	.075
Critical Reading (L1)	.056	.083	.097	.055	.082
Critical Reading (L1)	.263*	.390**	.334**	.286**	.216*
Critical Reading (L2)	.484**	.570**	.590**	.483**	.382**
Critical Reading (L3)	.183	.224*	.211*	.140	.125

*$p < .05$

DISCUSSION

The present work was conducted to determine ELL students' critical reading ability, vocabulary size and the relationship between the two. Overall, two main conclusions can be deduced from the current work. Firstly, the results of the study revealed that students had a problem recognising words beyond the 2000 level, indicating a weak threshold level of vocabulary. Many students only achieved mastery level for the 2000-level tests but had a major problem in the higher-level tests. In general, therefore, it seems that students' vocabulary development is not reaching the level needed for university education. Academic success at the tertiary level requires at least 5,000 to 10,000-word families (Reads, 2000).

Additionally, Nation and Warring (1997) concur that words at the 3000-word level and 5000-word level are considered vital for basic comprehension in English as a second language. Similarly, Nation (2006), in his study, established that university students need a vocabulary knowledge of about 8,000 to 9,000-word families to comprehend a written text without assistance. The gap between what is required for tertiary academic success and secondary students' L2 proficiency poses a worrying deficiency that needs attention.

The second conclusion that can be deduced from the study is a majority of students were not able to read critically. On average, most of the students have low critical reading ability and were unable to analyse, synthesise and draw a conclusion. As reported earlier, students could not perform basic critical reading skills at Level 1 such as giving an opinion, identifying an issue in a text, and determining the intended audience and the author's purpose. This discovery is consistent with that of Par (2018), who found that most of the undergraduate students in his study have low critical reading ability. Findings from the current work also confirm previous studies conducted by Kaur and Sidhu (2013) and Zin, Wong and Rafik-Galea (2014) which indicate that university students have poor critical reading abilities. This finding poses a great concern. Critical reading is the core of university education. One of the reasons for this deficiency is the fact that Malaysian students have limited exposure to critical reading tasks and have not been asked to evaluate texts at schools (Crismore, 2000). Another possible reason which contributes to the students' inability to perform critical reading could be due to their poor L2 proficiency (Zin, Wong & Rafik-Galea, 2014). In the present study, over half of the students (i.e., 51%) had a vocabulary size of 2000 implying that they may not fully understand the texts and therefore not able to move to a higher level in the critical reading hierarchy of Bloom taxonomy. Findings from the study show that there is a relationship between vocabulary size and critical reading ability. As students' vocabulary size increases, so do their abilities to answering critical reading questions. This indicates that the increase in L2 vocabulary size enables students to read critically in that comprehension precedes analysis, synthesis and evaluation.

Simply put, the information and knowledge conveyed by the author must be first processed by the readers; only then they build the foundation blocks for comprehension. Students who struggle with comprehension grasp only a small fraction of what they read, recalling some details, but fail to process the entirety or the whole picture. Their cognition is distorted, resulting in poor critical reading skills. In other words, insufficient vocabulary size may indicate lower critical reading scores across all levels. This finding is consistent with Astan and Tamah's (2015) finding which found a correlation between vocabulary size and L2 reading ability, including critical reading abilities. Theoretically, the use of schemata to understand the text and answer critical reading questions is inevitable; and a threshold level of vocabulary proficiency is key to be a better reader. With some training, ELL students can read critically.

Overall, in line with other studies (see Cain & Oakhill, 2014; Oslund, Clemens, Simmons, Smith, & Simmons, 2015; Quinn, Wagner, Petscher, & Lopez, 2015), the vocabulary knowledge and reading performance generally correlate strongly. The results seem to imply that the number of known words determines the understanding of a text, and this may enable students to read critically.

LIMITATIONS

Whilst this study confirmed the relationship between vocabulary size and critical reading ability, the lack of strong correlations between the vocabulary level tests and critical reading questions warrant further investigations. As it is, the current work can only partially substantiate the connection between vocabulary size and critical reading ability. Several reasons may account for these findings. First, the use of subjective questions might inhibit some students from attempting to answer the questions and expressing themselves fully. That could possibly explain why some students left the questions unanswered in the reading section. Second, completing two demanding tests; critical reading and vocabulary test, in one session, is probably too cognitively exhausting. Students might feel constrained to answer all the questions in a short time span, while others might give up altogether. Third, the findings from this study were only based on ELL secondary students at one urban school. Hence it remains unclear whether students from schools in rural districts would perform the same as in the present study. Further research should focus on ELL secondary school students in all areas so that comparisons can be made.

IMPLICATIONS AND CONCLUSION

Despite the limitations of this study, some note-worthy conclusions can be drawn. Overall, the results of the present work have supported the notion that increasing ELL learners' vocabulary size is instrumental for the development of critical reading ability. The capacity to answer critical reading questions at the higher level may be enhanced with the increase of L2 vocabulary. The second premise is that Malaysian secondary students who are transitioning to the tertiary level must be better equipped with critical reading skills which are needed in university. As the present study has demonstrated, ELL learners lack basic critical reading skills deemed necessary for tertiary level education. It is paramount to move beyond skills learning. Hence, ELL learners must be taught critical reading skills while at schools. These are the skills that are essential to college success.

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