Relationship between ESL Learners' Reading Self-Efficacy, Reading Strategies and Critical Reading among Pre-University Students in a Malaysia Public University

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Abstract

Critical reading, suitable reading strategies and reading self-efficacy are vital factors in order to successfully understand and comprehend academic texts in tertiary institutions. Reading in the second language or foreign language is a complex process which demands the readers to commit cognitively and participate actively in the reading process. This study explores the relationship between reading self-efficacy, critical reading and use of reading strategies among pre-university students in Malaysia. The study involved 231 pre-university students in UTM (n=231). This study employed the quantitative descriptive research design. A set of questionnaires consisting of EFL Learners' Self-Efficacy Scale in Reading, Survey of Reading Strategies and Peter Honey's Critical Thinking Questionnaire weas distributed to the sample and the results from the descriptive analysis using frequency and percentage highlight that the students' level of reading self-efficacy, critical reading and use of reading strategies were moderate, slightly above moderate and high, respectively. The findings from inferential statistical analysis using Spearman Correlation indicate the significant relationships between the three factors. Hence, the findings of this study could be used to develop a more appropriate and suitable curriculum incorporating explicit instructions to the use of reading strategies and critical reading. Furthermore, future studies could be done to develop a framework based on the hierarchical levels of cognitive demands to systematically monitor the students' literacy development.

Keywords: Critical reading, reading self-efficacy, reading strategies, pre-university students

Abstrak

Membaca dalam bahasa kedua atau bahasa asing adalah proses yang kompleks yang menuntut pembaca member komitmen kognitif dan mengambil bahagian secara aktif dalam proses membaca. Membaca artikel akademik dan manuskrip penyelidikan untuk tujuan akademik di institusi pengajian tinggi adalah tugas yang lebih mencabar yang memerlukan pembaca memahami, menganalisis, mensintesis dan menilai hujah-hujah yang sedang dibentangkan melalui penyelidikan empirikal. Untuk memahami teks akademik dengan berkesan, pelajar perlu membaca secara kritikal, mempunyai efikasi kendiri untuk membaca yang tinggi dan menggunakan strategi pembacaan yang sesuai. Oleh itu, kajian ini bertujuan untuk menyiasat hubungan antara efikasi kendiri untuk membaca, penggunaan strategi pembacaan dan bacaan kritikal di kalangan pelajar Pra-Universiti di sebuah institusi swasta di Malaysia. Reka bentuk penyelidikan diskriptif kuantitatif telah digunakan dalam kajian ini di mana satu set soal selidik yang terdiri daripada EFL Learners' Self-Efficacy Scale in Reading, Survey of Reading Strategies and Peter Honey's Critical Thinking Questionnaire telah diedarkan kepada pelajar pra-universiti di UTM. Seramai 231 orang pelajar telah mengambil bahagian dalam kajian ini. Dapatan daripada analisis deskriptif menekankan bahawa tahap pelajar membaca keberkesanan diri, bacaan kritikal dan penggunaan strategi membaca adalah sederhana, sedikit di atas sederhana dan tinggi. Korelasi dianalisis menggunakan Korelasi Spearman, yang menunjukkan bahawa terdapat hubungan yang signifikan antara bacaan kritikal, membaca kepercayaan keberkesanan diri dan penggunaan strategi membaca. Hasil kajian ini member maklumat bahawa strategi pembacaan dan membaca secara kritikal perlu diajar dengan jelas untuk membangunkan efikasi kendiri untuk membaca, dan memastikan pemahaman yang berkesan terhadap teks akademik. Penyelidikan masa depan harus menggunakan gabungan kedua-dua kaedah kualitatif dan kuantitatif untuk lebih memahami pelbagai jenis strategi membaca dan kemahiran membaca kritikal yang digunakan oleh pelajar. Oleh itu, dapatan kajian ini boleh digunakan untuk membangunkan kurikulum yang lebih sesuai dan sesuai yang menggabungkan arahan yang jelas kepada penggunaan strategi membaca dan bacaan kritikal. Selain itu, kajian masa depan boleh dilakukan untuk membangunkan rangka kerja berdasarkan tahap hierarki tuntutan kognitif untuk memantau perkembangan celik huruf pelajar secara sistematik.

Kata kunci: Membaca secara kritikal, efikasi kendiri untuk membaca, strategi membaca, pelajar pra-universiti.

■1.0 INTRODUCTION

Reading and comprehending a second language is a vital skill particularly when an individual pursues into the tertiary level as most courses require the individual to critically read academic journal articles in order to understand theories and arguments behind research and to further examine the research gap to be filled. It has been demonstrated that critical thinking, the usage of reading methods, and reading

self-efficacy beliefs are crucial for university students to advance in their studies (Arum and Roksa, 2011), yet detailed studies on these variables especially among new students remain scarce (Hyytinen et. al., 2018).

Ideally, students' learning strategies, self-efficacy beliefs and their abilities to read and think critically are crucial factors to succeed in their study, besides having excellent grasp of the English language as the language has been taught since kindergarten in Malaysia. English has been used as the medium of instruction in many institutions around Malaysia, making the mastery of the language highly important. Yang (2004) indicated that students' learning attitude, learning performance and learning behavior are all influenced by the students' self-efficacy belief. Besides, in a study by Idrus and Salleh (2017) on Malaysian undergraduates in their ESL ability found that students with high self-efficacy tend to work harder, are ready and persistent when faced with challenging tasks related to the second language compared to low efficacious learners who tend to give up and doubt their capabilities in the language.

Furthermore, in Malaysia, students enrolled in Pre-University programmes are required to sit for Malaysian University English Test examination (MUET) as one of the university entrance requirements. Singh and Rajalingam (2012) also studied the relationship between self-efficacy and writing ability of pre-university students in Northern Malaysia and found that pre-university students struggle with all four components of English language learning. This statement is supported by Ishak (2005) who noted that pre-university students in Malaysia experienced language learning anxiety due to the transition into higher education which requires them to be fluent and critical thinkers and readers as Malaysian children are found accustomed to being educated in a formal way, passively accepting the knowledge being transmitted without critically analysing them.

Despite this prominent importance of self-efficacy beliefs, there is limited research on its relationship with other language learning factors particularly among Malaysian students, in all levels of education. Ironically, even though the English language holds a similar importance in Malaysia as the national language; Bahasa Melayu, where its mastery is crucial for job promotion and academic purposes (Maarofa and Yaakob, 2011), research on the underlying factors that determine the mastery of the language remains lacking. The underlying factors in all academic areas be it language, mathematics, science etcetera as determined by Phan (2009) are self-efficacy, critical thinking, achievement goals and learning strategies.

Therefore, this study sought to examine the relationship between Malaysian pre-university students' reading self-efficacy, reading strategies and critical reading ability in reading English academic papers be it journals, texts, articles, research etcetera. This current study attempts to examine the pre-university students' level of critical reading, use of reading strategies and reading self-efficacy beliefs, and to identify the relationship between these factors. Based on the problem statement and purpose of this research, the objectives are as follows:

i.   To determine the dominant levels of reading proficiency, reading self-efficacy, critical reading ability and reading strategies used among pre-university students in Malaysia.
ii. To identify the relationship between Malaysian Pre-University reading self-efficacy beliefs, reading strategy used and critical reading ability.

■2.0 LITERATURE REVIEW

Reading can be defined as the process of associating meanings to words or symbols in a text (Dechant, 1982), while comprehension is a process following many stages starting from lexical comprehension, semantic comprehension and sentence comprehension (Goldstein, 2011). During the reading process, the reader is expected to put as much effort as possible in order to anticipate the meaning, perspective, stance and view of the author which may differ among individuals (Goodman, 1967). Reading involves many underlying cognitive processes and is closely related to self-efficacy and choice of reading strategies.

There is no empirical research on how critical thinking, reading strategies, and self-efficacy beliefs are related among new students (Hyytinen, Toom, & Postareff, 2018). On the other hand, Chou (2017) also mentioned that insufficient study has been conducted to examine the relationship between self-efficacy and its influence on learning English as a Foreign Language and different types of learning strategies, indicating that to date, there has been little attempt at exploring and integrating psychological factors with second language acquisition which in nature, is closely related.

One of the psychological factors is self-efficacy, which has been shown to be related to students' motivation, as well as engagement and performance. Reading self-efficacy beliefs is the positive belief in one's L2 reading skills and own problem solving (Leung, Mikami and Yoshikawa, 2019). Kalati (2015) stated that when L2 learners are highly motivated, they will tend to be hard-working and not afraid of making mistakes. Self-efficacy is strongly intertwined with motivation as according to Bandura (1995), self-efficacy measures a person's fundamental belief in their ability to accomplish their own personal goals. Motivation or the drive is a core concept within self-efficacy. Many studies have been conducted to investigate the critical role of self-efficacy in promoting students' reading comprehension development among primary school students (Cho et al., 2021). Besides, Wang, Shen and Yu, (2021) recently had also found that Chinese undergraduate students with high self-efficacy were more motivated in acquiring a foreign language, consequently increasing their mastery of the language itself, particularly in listening and reading. In examining the relationship between reading self-efficacy and reading strategies, many recent researchers found that self-efficacy has positive effect on SLA learners' learning strategies used (Chou, 2017; Shokrpour, Hayat, Shatery, and Amini,2020; Wang, and Zhan, 2020; Mazzetti, Paolucci, Guglielmi and Vannini, 2020).

Besides, Tavakoli (2016) studied the effect of explicit reading strategies on reading comprehension and self-efficacy of Iranian SLA students and found that explicit teaching of metacognitive reading strategies increased learners' reading comprehension of L2 texts and increased students' self-efficacy beliefs. Other than that, Qahtani (2020) used a retrospective think-aloud protocol to investigate EFL learners' reading strategies. His findings suggest that thinking aloud is useful for evaluating and reconstructing readers' prior knowledge. These are some of the reading strategies that had been studied, indicating that explicit reading strategy positively impact on learners' language acquisition. Prior to that, Purdie and Oliver (1999) had found that self-efficacy was significantly associated with metacognitive and cognitive strategies among successful bilingual language learners in Australia. This past research proves that self-efficacy and reading strategies are related.

Another psychological component emphasised in this study is critical reading and its relationship with reading strategies used and reading self-efficacy. Hromova et al., (2021) indicated that critical reading and reading strategies are intertwined, where they found that

low language learners tend to use low level of critical reading strategies, which resulted in inefficient comprehension of the text. In another study, Mohamed (2017) conducted experimental research to examine the impact of the reciprocal teaching strategy (RT) as a reading instruction method in improving critical reading and self-efficacy of first year secondary school students in Tanta. He found that the there is a great difference in the results between the control group and the experimental group, where the self-efficacy was increased, consequently increasing the students' critical reading skills. Similarly, Jonathan, Tan, Koh, Caleon, and Tay (2017) studied the impact of learning analytics (LA) dashboard visualizations on self-efficacy, critical reading, and students' engagement in reading also found a positive relationship between these three variables. In another study by Karadeniz (2015) on Faculty of Education students in Turkey it was found that there is significant relationship between self-efficacy and critical reading with a positive correlation, and gender differences occurred among the sample in terms of these three variables. Nevertheless, based on the review of the literature, related studies remain scarce in the context of Asian countries and pre-university students, leading to the significance of this current research.

■3.0 METHODOLOGY

The descriptive design through quantitative survey method was opted to be used in this study. According to Creswell (2012), questionnaire survey is one of the ways to obtain information regarding the entire population by examining a smaller part of the population known as the sample (n). In this study, a set of questionnaire consisting of EFL Learners' Self-Efficacy Scale in Reading, Survey of Reading Strategies and Peter Honey's Critical Thinking Questionnaire was distributed to the sample that was determined through simple random sampling method. The self-rated questionnaire used a Likert type scale, rated on a scale from 1-5. The data were analysed using descriptive analyses involving frequency, mean and percentage, and inferential analysis.

Normality Analysis

The Kolmogorov-Smirnov test findings are shown in Table 1, and they reveal that, with the exception of Reading Strategies, all constructs are not normally distributed (p-value are less than 0.05). Therefore, Altman (1995) asserts that in situations when samples contain hundreds of observations, the data distribution may be disregarded, hence inferential analysis using Spearman Correlation was conducted as the data were treated as non-parametric, ordinal data.

Table 1 Kolmogorov-Smirnov Test of Normality

Constructs	Kolmogorov-Smirnov		
	Statistic	df	Sig.
Self-efficacy	0.168	231	0.000
Reading Strategies	0.052	231	0.200
Critical Thinking	0.077	231	0.002

Population and Sample

The target population of this study was the students undertaking the foundation programme at UTMSpace, Skudai, Johor. The total population was 458 students. The questionnaire was distributed online through their official email and a total of 231 responses were obtained.

Demographic Background

The first section of the questionnaire attempts to obtain the demographic data of the students. The items being examined include age, gender, race and the students' perceived level of English.

EFL Learners' Self-Efficacy Scale in Reading

Section B of this questionnaire consists of the EFL Learners' Self-Efficacy Scale in Reading which was adopted from Ghonsooly, & Elahi, (2010) which showed high reliability with Cronbach alpha value of 0.81. It consists of 11 items where the respondents were required to rate their self-efficacy beliefs in reading English written texts based on the 5-point Likert scale;1=Strongly Agree, 2=Agree, 3=Moderate, 4=Disagree and 5= Strongly Disagree.

Survey of Reading Strategies (SORS)

The SORS consists of 30 items examining the students' use of 3 types of reading strategies namely global reading strategy, problem solving strategy and support strategy. This SORS has a Cronbach alpha value of 0.93 which is high in reliability (Mokhtari and Sheorey, 2002). The items were rated on a 5 point Likert scale; "1=Never or almost never, 2=only occasionally, 3=sometimes, 4=usually and 5=always or almost always."

Peter Honey's Critical Thinking Questionnaire (2000)

The final section of the questionnaire examines the students' critical reading using Peter Honey's critical thinking questionnaire with a Cronbach alpha value of 0.86, which shows high reliability (Naieni, 2005). Students will need to think critically in order to be able to read critically. This section consists of 30 items rated on a 5-point Likert scale; 1 being "Never" and 5 being "Always".

■4.0 RESULTS

The data obtained from the returned questionnaire were analysed using descriptive and inferential statistical analysis namely frequency and percentage, and Spearman correlation, respectively.

Demographic Information of Respondents

The demographic data of the students include gender, age, race and level of English language proficiency are tabulated in Tables 2, 3, 4 and 5.

Table 2 Frequency and percentage of respondents' gender

Gender	Frequency	Percentage (%)
Male	120	51.9
Female	111	48.1
Total	231	100.0

From the 231 responses that were returned, based on Table 2, it can be seen that the respondents consist of 51.9% (120) male and 48.1% (111) female students.

Table 3 Distribution of students according to age

Age	Frequency	Percentage (%)
Under 18	9	3.9
18 - 22	222	96.1
Total	231	100.0

Table 3 presents the distribution of students based on age category. Majority of the students are 18 to 22 years old, 96.1% (222). Only 3.9% (9) of them are under 18.

Table 4 Distribution of students according to race

Race	Frequency	Percentage (%)
Malay	73	31.6
Indian	18	7.8
Chinese	129	55.8
Others	11	4.8
Total	231	100.0

From Table 4, a total of 31.6% (73) students are Malay, 7.8% (18) students are Indian, 55.8% (129) students are Chinese and the rest 4.8% (11) students come from other races, including international students.

Table 5 Distribution of students according to level of proficiency in English

Level of Proficiency in English	Frequency	Percentage (%)
Low intermediate	79	34.2
High Intermediate	104	45.0
Advanced	35	15.2
Proficient	13	5.6
Total	231	100.0

Table 5 tabulates the distribution of students based on their level of proficiency in English. From 231 students, majority of students with a total of 45% (104) considered themselves as having high intermediate level of proficiency in English. Meanwhile, 34.2% (79) considered themselves as having low intermediate level of English language proficiency, 15.2% (35) of the students categorised themselves as advanced and only 5.6% (13) students identified themselves as having proficient level of English.

Level of reading self-efficacy, critical reading and reading strategies used among Pre-U students in UTM

To determine the overall level of reading self-efficacy, reading strategies used and critical reading ability among Pre-University students, the mean of the total score was calculated and was analyzed using the interpretive scale.

Table 6 Descriptive statistics of reading self-efficacy, reading strategies and critical reading

Construct	Mean	Standard Deviation
Self-Efficacy in reading	2.88	0.5897
Reading Strategies	3.78	0.4939
Critical reading	3.57	0.5789

Table 6 highlights that on average, students evaluated their reading self-efficacy beliefs in reading English between 2=Agree and 3=Moderate with mean value of M=2.88, and SD=0.5897. Adhering to the interpretive scale, it can be concluded that the Pre-university students rated themselves as having moderate level of reading self-efficacy belief.

Furthermore, based on Table 6, higher score for reading strategies indicates that the students regularly use the reading strategies while comprehending academic texts, and vice versa. On average, students evaluated reading strategies in reading English between 3=Sometimes and 4=Usually. The higher the rating indicates that the concerned strategy is more frequently being used. Hence, overall reading strategies applied by Pre-U students in UTM can be considered high with M=3.78, SD=0.4939 based on the interpretive scale, where mean values ranging between 3.41 – 4.20 are considered as high level of the construct.

For the last variable which is critical reading, it was found that on average, students evaluated critical thinking in reading English between 3=Sometimes and 4=Often with M=3.57, SD=0.5789. Based on the interpretive scale, mean value ranging between 3.41 – 4.20 indicates quite high level of the construct. Hence, the level of critical thinking among Pre-U students in UTM can be considered as often or highly used.

Relationship between Malaysian Pre-University students' reading self-efficacy beliefs, reading strategy used and critical reading ability

Spearman Correlation was computed to measure the relationship between Pre-University students' reading self-efficacy beliefs and reading strategy used.

Table 7 Relationship between self-efficacy and reading strategy constructs

		Reading Strategies	Self-Efficacy
Self-Efficacy	Spearman rho (ρ)	-.158[*]	-
	Sig. (2-tailed)	.017	-
Critical Reading	Spearman rho (ρ)	.548[**]	-.238[**]
	Sig. (2-tailed)	.000	.000

*correlation is significant at the 0.05 level

Table 7 presents the significant results in determining the relationship between all the three variables. Firstly, the relationship between Malaysian Pre-University students' reading self-efficacy beliefs and reading strategy used showed a p value of 0.017. The correlation value of ρ = -0.158 indicates a negative weak relationship between students' reading self-efficacy beliefs and reading strategy used. A negative correlation between two variables means that one decreases in value while the other increases in value or vice versa. In this study, the higher reading self-efficacy, the lesser the reading strategy used.

Next, the finding of the analysis in Table 7 indicates a significant relationship between critical reading and thinking ability and use of reading strategy among Malaysian Pre-University students in UTM (p = 0.000). The correlation value of ρ = 0.548 indicates a positive strong relationship between students' critical reading ability and reading strategy used.

Lastly, Table 7 presents the Spearman correlation analysis results in determining the relationship between Malaysian Pre-University students' reading self-efficacy beliefs and critical reading ability in UTM. Based on the p-value (p = 0.00), there is a significant relationship between students' reading self-efficacy beliefs and critical reading ability (p<0.05). The correlation value of ρ = -0.238 indicates a negative weak relationship between students' reading self-efficacy beliefs and critical reading ability. A negative correlation between two variables means that one decreases in value while the other increases in value or vice versa. In this study, the higher reading self-efficacy, the lesser the critical reading and vice versa.

■5.0 DISCUSSION AND RECOMMENDATION

Pre-University Students' Level Of Reading Self-Efficacy

Pre-U students' level of reading self-efficacy beliefs when reading academic texts written in English was examined using EFL Learners' Self-Efficacy Scale in Reading which was adopted from Ghonsooly, & Elahi, (2010). From the results, it was found that the students showed 'moderate' self-efficacy when reading English academic texts. From this finding, it can be seen that the students had quite low self-efficacy beliefs to read in English, which is their second language. In a study by Murad and Zain (2011) on ESL students' reading self-efficacy beliefs, it was found that the 200 students had low level of reading self-efficacy belief.

Similarly, in an experimental study by McLean and Poulshock (2018), they found that the Japanese pre-university students all had the same level of reading self-efficacy at the start of the study, which was considered low to moderate, and after the treatment, some of these students showed an increase in reading self-efficacy as they improved their reading ability, which led to more reading (Burrows, 2013). However, their study was limited to the reading of non-academic materials. Therefore, the level of reading self-efficacy beliefs among the students in this current study is in line with those of previous studies where ESL or EFL tend to rate themselves as having moderate level of reading self-efficacy when reading texts written in English.

Pre-University Students' Level Of Critical Reading Ability

From the results, it was found that most of the students rated that they 'sometimes' use critical thinking skills when reading English written academic texts. The critical reading skills include ways to comprehend the text, analyse the texts to increase understanding and evaluate the arguments presented in the text to arrive at a sound conclusion. This indicates that overall, students only sometimes attempt to understand the arguments presented in the texts in more detail. This could be attributed to the demanding task of having to read academic

texts which are not written in the students' mother tongue, resulting in the moderate critical reading skills among pre-university students in UTM. Besides, students need to have critical thinking ability to be able to read critically. Similar results were also yielded from previous studies for instance, a study by Hassani, Rahmany and Babaei (2013) on Iranian EFL learner's critical reading in reading journalistic texts written in English, found that out of the 62 samples, the median score was 91.00 for Honey's critical thinking questionnaire. This result is similar to the current study where 91.00 is considered as moderate or 'sometimes', indicating that critical reading only takes place sometimes throughout the students' reading activity. Other than that, in another study by Wang (2015) on Chinese EFL learners' critical reading development through reading-based activities found that initially, the students had very weak critical reading ability prior to guided instruction. In this particular study, 56% of the students indicated that they were unable to identify the arguments presented in the text, and faced difficulty distinguishing between arguments, explanation and descriptions. Nevertheless, studies on critical reading among students in Asia are still limited as recently noted by Nguyen and Nguyen (2020).

Pre-University students' use of Reading Strategies

The third and last variable being examined in this study is the pre-university students' use of reading strategies when reading academic texts written in the English language. The findings from the questionnaire indicated that the students 'usually' and 'somewhat always' apply various reading strategies when they are reading academic texts. Based on the findings, it was found that the cumulative percentage of students who always and usually use reading strategies when they read was 78.3%, the remaining 21.2% sometimes do so and only 0.5% who had never used any of the reading strategies. The most dominant reading strategy applied by the students was '*When text becomes difficult, I re-read it to increase my understanding*' with a total of 54.5% (n=126) of the students rated the item as 'always', indicating that more than half of the students re-read the text to comprehend difficult texts. The finding of this current study is similar to Karbalaei and Golshan (2010) in their study on reading strategies of students from different cultural background particularly Iranian EFL and Indian ESL students who found that the most used strategies by the students were '*reading slowly and carefully to make sure I understand what I am reading*' and '*When text becomes difficult, I re-read to increase my understanding*'. Suebpeng (2017) had also conducted a study on Thai ESL students and found that the students rated that they usually and almost always use reading strategies when they read, but the researcher emphasized that the reading strategies used by each student is unique to the individual student himself. Overall, the findings in the students' use of reading strategies indicated that the students are aware of the different reading strategies that they applied when reading English written texts and consistently change their behaviour to decrease the difficulty of challenging reading tasks through different reading strategies. It is also found that the students showed lack confidence in using global reading strategies or metacognitive strategies which may be due to the lack of exposure to these specific skills by their respective lecturers.

Relationship between Malaysian Per-University Students' Reading Self-Efficacy Beliefs and Use of Reading Strategies

Based on the results, it was found that there is a negative weak relationship between students' reading self-efficacy beliefs and reading strategy use with spearman correlation value of ρ= -0.158, p = 0.017 < 0.05. This indicates that as the self-efficacy of a student increases, their use of reading strategies will decrease and vice versa. This result is supported by current researches which showed that reading self-efficacy impacts on English language learners' use of reading strategies and many of the research used self-efficacy as a mediator (Golparvar, and Khafi, 2021; Graham. Et. al, 2020, Kim, 2020). Interestingly, the results of this current study slightly differ in terms of the negative correlation yielded from the analysis as other previous studies reported a positive correlation, indicating that high self-efficacy leads to increased use of reading strategies. This argument is in accordance with Mokhtari (2001) who proposed that skilled readers are more capable of monitoring their metacognition and cognition, which explains why skilled readers tend to apply the appropriate reading strategies and regulate the use of these strategies when required. This is in line with Bandura's (1989) theory of self-efficacy where he mentioned that self-efficacious individuals will be more motivated to be involved in highly challenging tasks because they believe that they are capable of doing so. In this case, students with high self-efficacy would certainly use more reading strategies as they will try their best to solve any difficulties they encounter while reading.

Relationship between Malaysian Pre-University students' critical reading ability and use of reading strategy

Based on the correlation analysis, it was found that there was a positive moderate relationship between Malaysian Pre-University students' critical reading and use of reading strategy with spearman correlation value ofρ= 0.548 and p value of 0.000 < 0.05. This finding is in support to a study by Mohammadi, Heidari, and Niry (2012) on Iranian senior students and found that there was a low positive significant correlation between the students' critical reading ability and reading strategies used. However, in another study on Iranian TOEFL students found that there was significant positive correlation between the students' critical reading abilities and reading strategies used (Hosseini, Khodaei, Sarfallah, and Dolatabadi, 2012). The research findings are consistent with the literature where Ulu (2019) reported that reading strategies was used throughout the critical thinking process among pre-service teachers in Turkey. Similarly, Hosseini, et. al (2012) found that the pearson correlation for the relationship between these two variables was r = 0.785 which indicated a strong positive relationship. This significant relationship as compared to the current study, may be attributed to the sample of study where Hosseini et. al conducted a study on students from the English language faculty, which may explain that they might be more proficient in the English language, enabling them to apply the complex reading strategies and read critically.

Relationship between Malaysian Pre-University students' reading self-efficacy beliefs and critical reading ability

It was found that there is a negative weak relationship between students' reading self-efficacy beliefs and critical reading skills. This means that when one variable increases, the other decreases. The result from Spearman correlation of ρ= -0.238 and p = 0.000 < 0.05 highlights this relationship. Similarly, Karadeniz (2015) conducted a study on the Faculty of Education students in Turkey and found a significant relationship between self-efficacy and critical reading with a positive correlation between the students' perceptions of self-efficacy for critical reading and their attitudes toward reading habits and Media literacy, but a negative correlation exists between their perceptions of

self-efficacy for critical reading and social media using habits. In his study, it was also found that gender differences played a role in determining these relationships. Nevertheless, the study on the relationship between reading self-efficacy and critical reading remains scarce despite the assumption that deep approach to learning is related to self-efficacy (Nelson Laird, Seifert, Pascarella, and Blaich, 2014). Furthermore, Hyytinen et. al (2018) also mentioned that these variables have not been empirically investigated in detail especially among new students.

■6.0 CONCLUSION

The findings revealed that the pre-university students' level of critical reading and reading self-efficacy are at a moderate level, yet the students showed that they use reading strategies almost usually when reading academic texts written in English. The relationships between these variables were shown to be significant indicating that one variable affects another in some ways.

However, this study is not without any limitations particularly in the size of sample itself, which may be considered small and only representing one institution. By limiting the number of samples, the findings of this study are inadequate for generalization to represent the population as a whole. Besides, the results may not represent all foundation students in Malaysia where its students come from various social backgrounds, and socio-economic status which have known to be one of the factors affecting English language acquisition. Moreover, as this study examined the 3 abstract variables that cannot be observed, it is unsure of whether the students do apply those reading strategies and critical reading as they have rated in the questionnaire items.

Therefore, for future research, it is suggested the research on similar issue can be carried out by incorporating both qualitative and quantitative research methods to obtain greater insights on the actual situation rather than relying solely on the self-rated questionnaire results. Tools like interviews and observation can be implemented to gather a great deal of data provided by the interviewees and provide in depth information on the types of critical reading and critical thinking skills that the students are involved in, and the reading strategies that are more commonly used. Besides, future research could also examine the role of reading self-efficacy as a moderating variable in affecting the use of reading strategies and critical reading.

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