

## Exploring Reading Difficulties and Online Reading Strategies Employed by Pre-University English as A Second Language (ESL) Learners

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To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v13-i10/18976> DOI:10.6007/IJARBSS/v13-i10/18976

**Published Date:** 26 October, 2023

### Abstract

Academic success and language acquisition hinge upon the fundamental role of reading as a key component. Effective reading strategies have been indicated as one of the pivotal determinants of academic success in tertiary education that warrants their mastery and utilisation. This study aims to determine online reading difficulties among pre-university ESL learners, and the strategies they employ when dealing with demanding online reading tasks. A quantitative method was used to retrieve data from a total of 207 participants who were selected through a purposive sampling method from a Centre of Foundation Studies at a selected public university in Malaysia. An online 5 Likert-scale survey, consisting 5 sections and a total of 48 items, was used for data collection. The questionnaire was adapted from Abeeleh and Al-Sobh (2021) and Amer, AL Barwani, and Ibrahim (2010) and analysis was done using IBM SPSS (Statistical Package for the Social Sciences) Statistics. Findings suggest that a sense of inferiority, low self-confidence, inadequate language proficiency, feelings of worry and frustration regarding their inability to comprehend online materials in English have led to the manifestation of reading difficulties. Nonetheless, irrespective of the difficulty level of reading materials, pre-university students have been utilising global, problem-solving and support strategies when engaging with online reading texts. The findings presented in this study offer valuable insights for designing specific interventions aimed at improving learners' reading skills, specifically in identifying strategies to deal with reading difficulties more effectively. This calls for a comprehensive review of the current pre-university language instructions, with the focus on aligning the curriculum to match learners' needs for a better comprehension of academic materials.

**Keywords:** Reading Strategies, Online Reading Difficulties, Online Reading Materials, Esl Learners, Global Strategies, Problem-Solution Strategies, Support Strategies.

## **Introduction**

### **Background of Study**

Reading is a skill that is crucial in all aspects of learning; as an essential tool for communication, retrieval of information, and attainment of new knowledge. In the context of language learning, particularly among English as a second language (henceforth, ESL) learners, reading serves as the foundation for other skills namely writing, speaking, lexical development and spelling (Moats, 2020). Reading English texts, according to Harmer (2007), gives positive benefits to learners' personal and academic development. Compared to native speakers, non-native readers experienced difficulties understanding English texts more frequently (Tobing, 2013), and reading comprehension errors were the major form of difficulties in learning to read (Fauzi, 2018). Barnett (1989) explained the term 'reading strategy' as learners' use of cognitive processes when engaging with and comprehending a written text. Referring to the strategy as readers' "conscious cognitive operation" that occurs while reading, Carrell (1998) described that they can distinguish between appropriate and inappropriate reading strategies for a specific reading task and apply them accordingly, thereby enhancing their comprehension of what they read. It is their consciousness and control of the cognitive processes that renders them the ability to monitor their own reading process (Baker & Brown, 1984). This shows that readers' strategic knowledge and use of effective reading strategies is essential in improving their comprehension of online materials. The issue of reading difficulties among ESL learners in Malaysia is not new. According to Noli et al. (2013), due to the high difficulty level of reading tasks at tertiary level, students' ability to read well is a valuable asset that determines their overall academic performance. In fact, reading strategies are highlighted as the fundamental skills (Noor, 2011) for academic success at institutions of higher learning. This emphasises on the need to teach learners certain strategies that would effectively help them overcome reading difficulties and navigate ways to deal with demanding online reading materials by using appropriate strategies.

The increasing interest in determining various reading strategies and how they could be taught to improve learners' comprehension, identifying effective reading strategies that are commonly utilised by high achievers and the like has led to more research work in this area. Similarly, a considerable amount of studies has focused on the relation between reading difficulties and reading strategies such as global, problem-solving, and support reading strategies. Mastering reading strategies that enable ESL learners to read well is important to improve their comprehension of any reading texts (including online materials) and to be able to communicate effectively. This work aims to tap into the ESL learners' reading difficulties and the different strategies used in coping with online reading materials. It is hoped to provide valuable insight into their reading processes and identify suitable interventions that can help to improve reading comprehension.

### **Statement of Problem**

Having a good proficiency in reading is important for all learners. They are required to utilise the right reading strategies across all subjects because their ability to construct meaning from reading materials is crucial for them to excel academically (Noli et al., 2013; Koda & Zehler, 2008). The fact that pre-university ESL learners are selected based on their outstanding *Sijil Pelajaran Malaysia* (SPM) results (including English subject) that qualify them for tertiary

education generally implies an idea that they should “naturally” be proficient at reading. However, a number of past research has demonstrated reading difficulty issues among Malaysian students, particularly among low proficiency ESL learners in reading online texts (Singh et al., 2023, Romly et al., 2018). The studies highlighted learners’ lack of interest in English texts, poor language proficiency, limited time for reading, and demanding reading tasks as factors contributing to these reading difficulties. Moreover, their lack of awareness towards effective reading strategies and inability to use them have led to their poor academic performance. According to Noli et al. (2013), undergraduates must be given reading activities that expose them to the use of effective reading strategies so that they can learn how to use them correctly.

The majority of past studies establishing relationships between low reading proficiency, reading strategies, language development, and academic achievement have primarily focused on school learners and undergraduates. ESL learners who underwent a transition from secondary school to pre-university might struggle with the more challenging tasks that require extensive reading like essay writing, assignments, laboratory reports, examination-based assessments, and the like. This brings about specific challenges that demand them to move on from more familiar reading tasks to managing ones with increased reading demands due to specialised academic vocabulary, complex text structures, and different genres (to name a few). Moreover, with incorporation of technology in education and the easily accessible and availability of various resources online have made them preferred reference materials for learners. Putting all these together, it is therefore important to tap into pre-university ESL learners’ reading difficulties in making the most out of this receptive skill to improve their comprehension and for overall learning experiences.

#### Objectives of the Study and Research Questions

This study is done to explore perception of learners on their use of learning strategies. Specifically, this study is done to answer the following questions;

- How do online readers perceive their reading difficulties?
- How do online readers perceive their use of global reading strategies?
- How do online readers perceive their use of problem-solving reading strategies?
- How do online readers perceive their use of support reading strategies?
- Is there a relationship between reading difficulties and reading strategies for online reading?

#### Literature Review

##### Difficulties in Reading

Despite extensive efforts made by educators to improve their students’ ability to read and comprehend texts, many of them continue to struggle mastering the skill which increases the possibility that they will drop out of school. According to a research conducted by Tobing (2013), non-native readers encounter problems comprehending an English text more frequently than native ones. The form of difficulty learning to read which has the most dominant tendency faced by all students is reading comprehension errors (Fauzi, 2018). Gedik and Akyol (2022) also added that the two other skills that affect fluent reading are word recognition and vocabulary knowledge. Deavers (2000) asserted that problems related to reading difficulty such as word recognition errors, comprehension errors, and miscellaneous symptoms negatively affect the reading skills of the students compared to their peers, which will cause them to fall behind in terms of achievement in both reading and other

fields. In terms of online reading, some of the major issues faced by students are making inferences, identifying references, finding specific information, as well as understanding the meaning of words or vocabulary (Pandiangan, 2022). On top of that, reading online requires additional comprehension skills beyond those required to read traditional-print texts, which can be a struggle for low-proficient readers (Castek, Zawilinski, McVerry, O'Byrne & Leu, 2011). Hence, it is of utmost importance that appropriate reading strategies be applied as, with early intervention and hard work, students with reading difficulties could be assisted instead of being left behind in their education (Sardor, Oyshajon & Rushana, 2020).

### Reading Strategies

Applying reading strategies gives a ***purposeful means*** (focus) to understand the author's text. This study looks at global reading strategies (henceforth GRS), problem-solution reading strategies (henceforth PSRS) and support reading strategies (henceforth SRS). GRS involves planning how to read and managing the reading process, which include previewing and predicting outcomes. PSRS refers to strategies employed to better comprehend difficult texts by guessing the meaning of words through contextual clues and visualisation of the text content. Lastly, SRS involves using external devices to understand a text, for example by using a dictionary, taking notes or underlining pertinent information (Par, 2020).

### Past Studies on Difficulties in Reading

Past studies on difficulties in reading revealed that ESL learners' most significant challenges are determining main ideas, making inferences, identifying references, finding specific information, and understanding the meaning of words or vocabulary. Pandiangan (2021) conducted a study on 22 secondary school students to determine the problems experienced by them in reading comprehension through online learning. By applying the qualitative phenomenological study approach which involves purposive sampling, the respondents had problems in determining the main idea, and understanding the meaning of words or vocabulary, which resulted in them also experiencing issues in learning reading comprehension. Another research carried out by Ampofo (2019) among 60 students using the mixed method approach discovered that comprehension errors, word recognition errors, problems relating to reading habits, inappropriate word grouping and ignored or misinterpreted punctuations are common reading difficulties found. This implies that students with reading difficulties require explicit structure instruction to learn word-recognition and reading comprehension skills.

### Past Studies on Reading Strategies

A review of past studies indicated that ESL learners' reading strategies have been a central topic among researchers in this field. Among others, Aisha et al. (2020), Par (2020), and Chen and Chen (2015) investigated the relationships between these strategies and learners' reading comprehension, reading proficiency, academic achievement (grades) and gender. The researchers highlighted that learners used specific reading strategies to make sense of the texts and that their choices of strategies were directly related to their proficiency and reading achievement. In a study conducted among 1<sup>st</sup> year and 4<sup>th</sup> year university students, Ozek and Civelek (2006, cited in Par, 2020) reported that aside from being better at summarising the gist of a reading text, making use of illustrations, as well as skimming for and integrating information while reading, those with high language proficiency also used more effective

strategies such as using contextual clues to guess the meaning of words and skipping words as compared to their less proficient counterparts who employed word-per-word translation. Despite the highlight on effective utilisation of the strategies for reading, Aisha et al. (2020) argued that this is not the case among ESL learners in Malaysia, stating that their lack of awareness of specific challenges or difficulties in reading had caused their disability to apply effective strategies. Similarly, Malaysian readers were reported to lack the awareness of different reading strategies (Semry & Maniam, 2015) that caused poor comprehension and inability to employ strategies to specifically tackle demanding reading tasks. Meanwhile, a report of a more recent study revealed that Malaysian undergraduates faced various difficulties along the reading spectrum, which include inability to identify main ideas of a text, poor reading habit and lack of interest in English texts, as well as poor vocabulary and time constraint (Edward et al., 2021). These previous works have highlighted the need to address the issues surrounding learners' reading difficulties, lack of awareness of and disability to utilise appropriate strategies in reading. Interventions such as proposing amendments to the current reading curriculum, instructors' pedagogical approach in reading activities and other relevant actions are needed to address the above-mentioned issues.

### Conceptual Framework

Figure 1 shows the conceptual framework of the study. According to Rahmat et al. (2020), sometimes academic reading is initially perceived as difficult because learners assumed that they would face difficulties due to past issues on language learning. These perceived difficulties can become a cycle for the academic reader and the problem may snowball into other reading problems. This study is rooted from reading difficulties by Abeeleh and Al-Sobh (2021) and the use of online reading strategies by Amer et al. (2010). According to Abeeleh and Al-Sobh (2021), some reading difficulties that learners face are difficulties with the content, the way the content is written, the words that are used or even the learners' language issues. Amer et al. (2021) found that during online reading, readers depended on some reading strategies. Global reading strategies were used initially for them to get an overall picture of the said text. Next, readers use problem-solving strategies to make sense of what they are reading. They may re-read sections in the text. They may use a dictionary to look for meanings of words. They may also seek help from others to understand the text. This involves the use of support reading strategies.

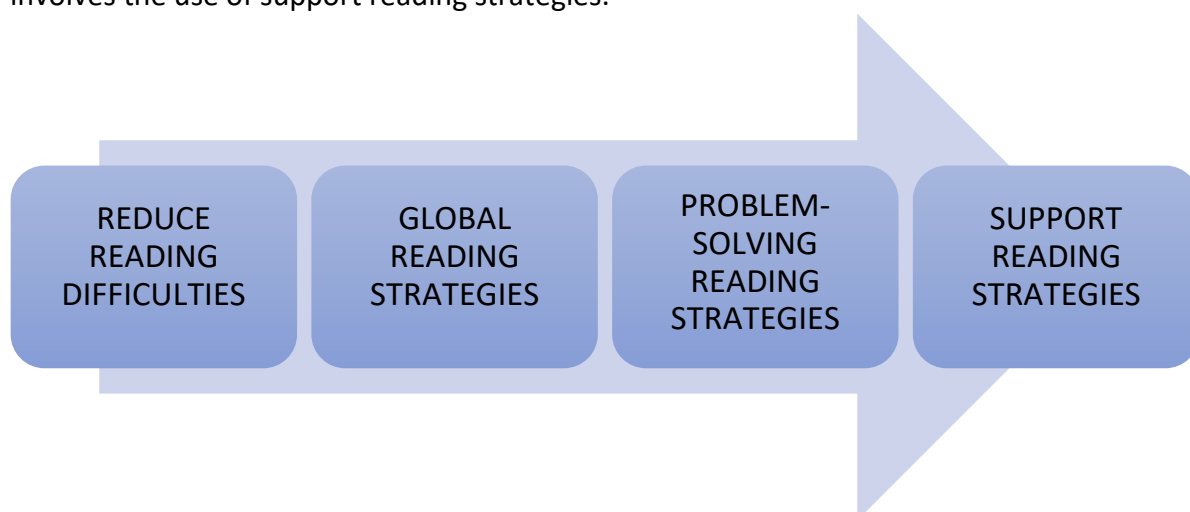


Figure 1. Conceptual Framework of the Study- Reducing Reading Difficulties using Online Reading Strategies

### Methodology

This quantitative study is done to explore motivation factors for learning among undergraduates. A purposive sample of 207 participants responded to the survey. The instrument used is a 5 Likert-scale survey and is rooted from Abeeleh and Al-Sobh (2021) on reading comprehension problems and also Amer, AL Barwani, and Ibrahim (2010) on readers' on perceived use of online reading strategies to reveal the variables in Table 1 below. The survey has 4 sections. Section A has items on demographic profile. Section B has 14 items on reading difficulties. Section C has 17 items on global strategies. Section D has 8 items on problem-solving strategies and section E has 9 items on support strategies.

Table 1.

*Distribution of Items in the Survey*

SECTION	STRATEGY	NUMBER OF ITEMS
A	Reading Difficulties	14
B	Global	17
C	Problem-Solving	8
D	Support	9
	Total	48

Table 2.

Reliability of Survey

### Reliability Statistics

Cronbach's Alpha	N of Items
.889	48

Table 2 shows the reliability of the survey. The analysis shows a Cronbach alpha of .889, thus, revealing a good reliability of the instrument chosen/used. Further analysis using SPSS is done to present findings to answer the research questions for this study.

### Findings

Findings for Demographic Profile



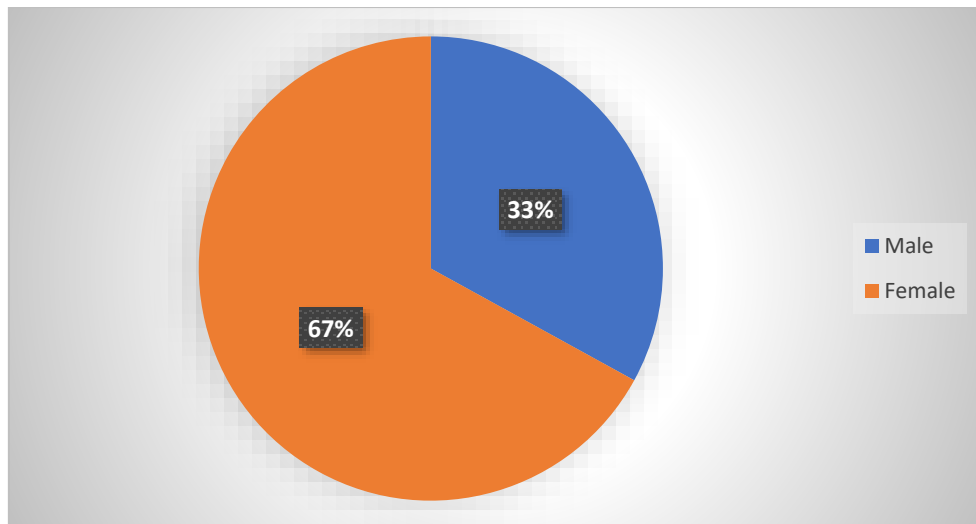


Figure 2- Percentage for Gender

Figure 2 displays the distribution of respondents according to gender. It shows that thirty-three (33%) of the respondents were male and sixty-seven (67%) were female in the survey.

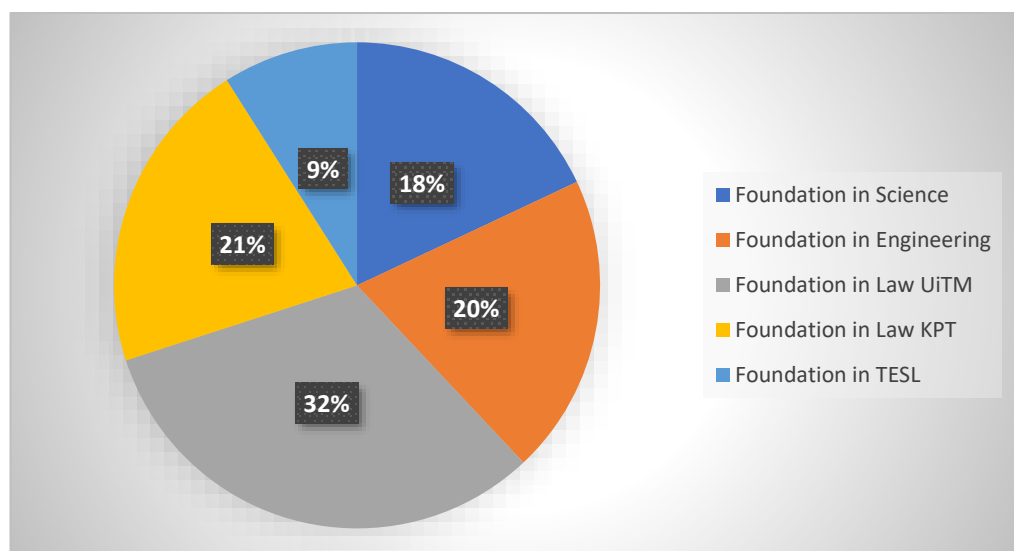


Figure 3- Percentage for Programme

Figure 3 shows the percentage of respondents across the different programmes they were enrolled in. Eighteen (18%) were students from the Foundation in Science, twenty (20%) from the Foundation in Engineering, thirty-two (32%) from the Foundation in Law UiTM, twenty-one (21%) and nine (9%) from the Foundation in Law KPT and TESL respectively.

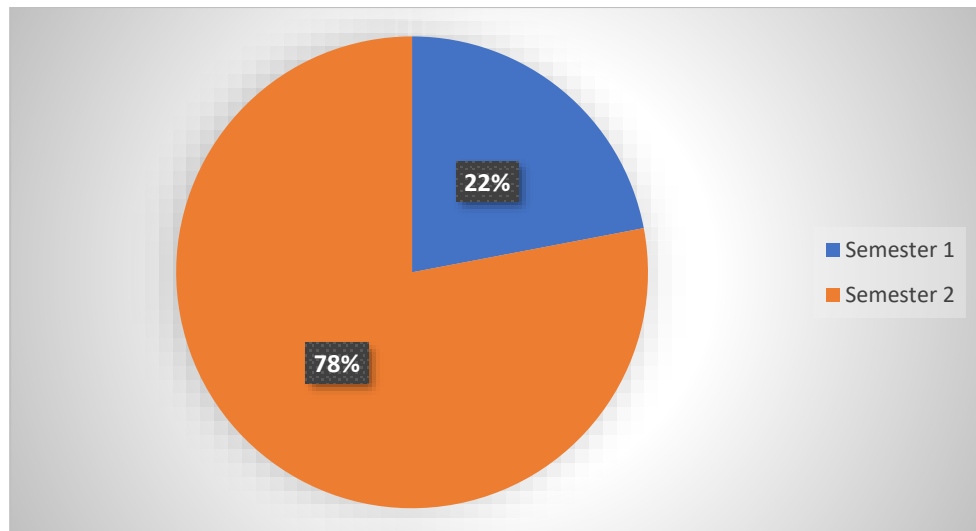


Figure 4- *Percentage for Semester*

Figure 4 presents the percentage of the semester the respondents were in when they participated in the survey. From the total number of 207 survey respondents, twenty-two (22%) were in Semester 1 and seventy-eight (78%) in Semester 2.

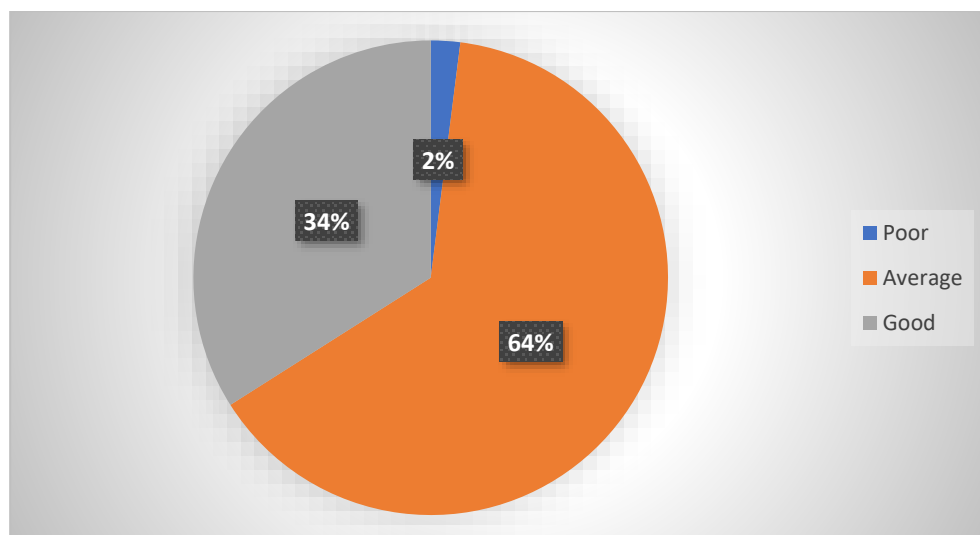


Figure 5- *Percentage for Self-Rating English proficiency*

As seen in figure 5, the survey respondents were categorised into three (3) different English language proficiency levels: poor, average and good. According to the survey, only two (2%) of the respondents rated their English proficiency as poor. While sixty-four (64%) of the respondents self-rated themselves as having an average level of English proficiency, thirty-four (34%) of them indicated that their English proficiency was good.



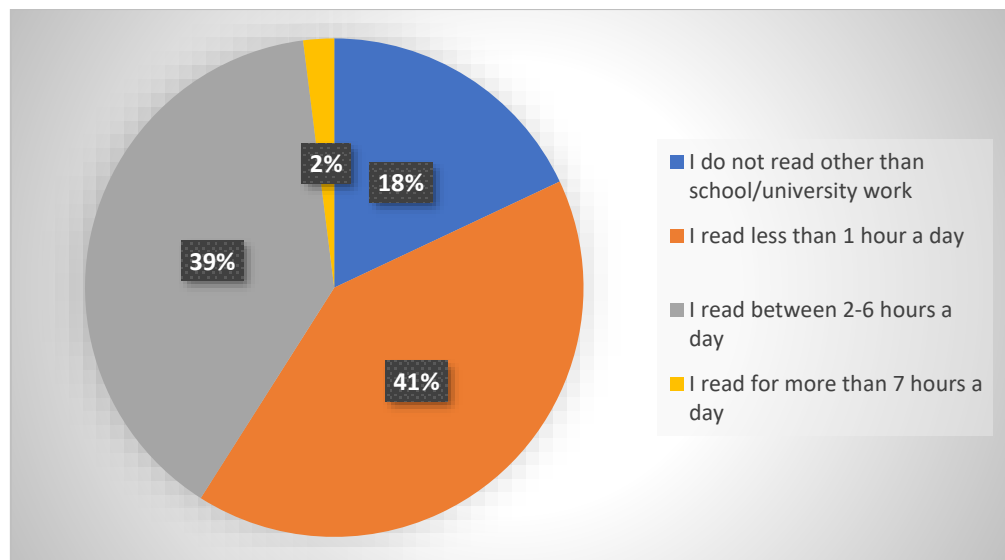


Figure 6- Percentage for Free Time Activity

Figure 6 displays percentages of free time activities, specifically reading. The data indicates that forty-one (41%) of the participants responded that they read less than one (1) hour a day, while thirty-nine (39%) read between two (2) to six (6) hours a day. eighteen (18%) of the respondents did not read other than school/university work, while two (2%) claimed that they read more than seven (7) hours a day.

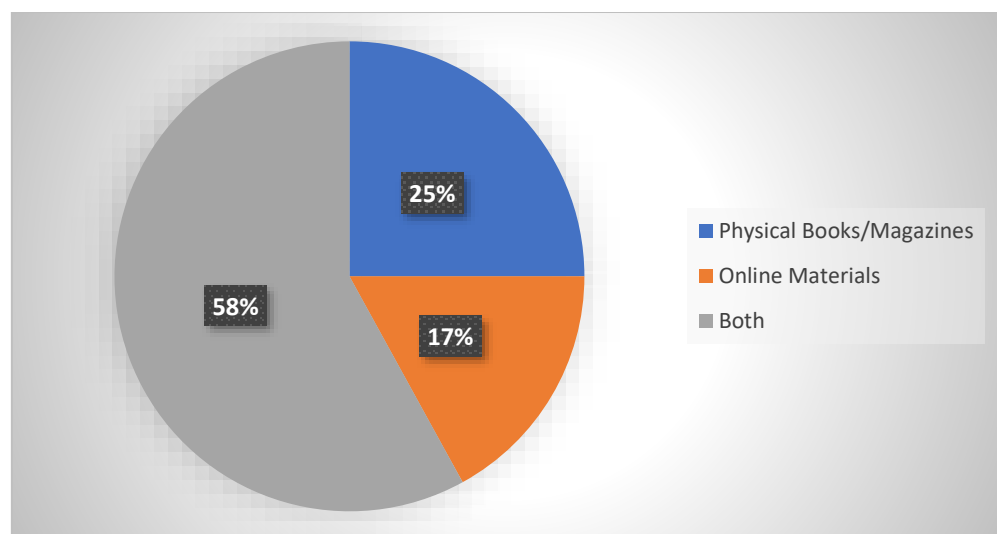


Figure 7- Percentage for Reading Preference

Figure 7 shows percentages for reading preference. fifty-eight (58%) of the respondents reported that they preferred both physical books/magazines and online materials. Another twenty-five (25%) responded that they preferred physical books/magazines while only seventeen (17%) preferred online materials.

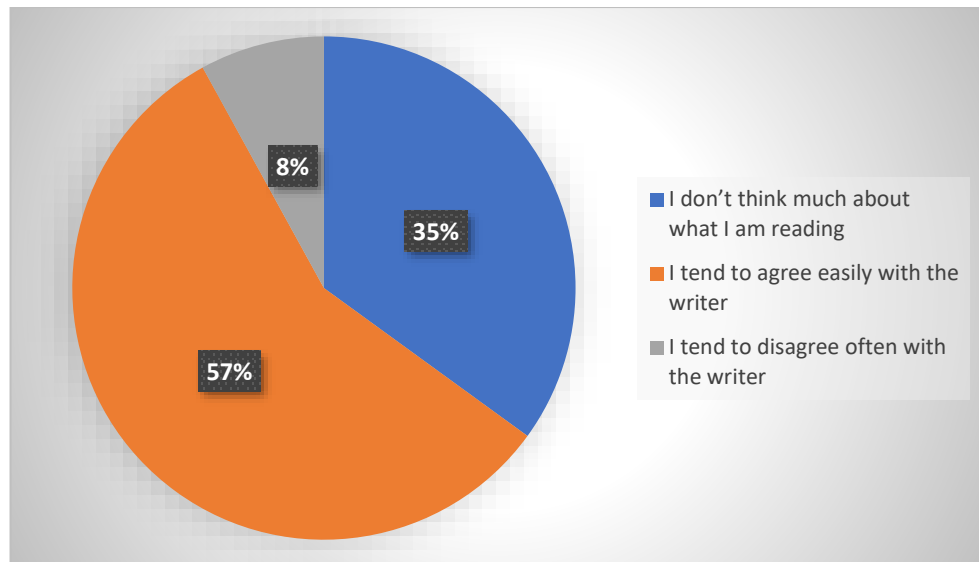


Figure 8- Percentage for Reading Habit

Figure 8 presents the percentages of reading habits among the respondents. More than half, fifty-seven (57%), responded that they tended to agree easily with the writer. Another 35% did not think much about what they were reading, while only 8% of the respondents tended to disagree often with the writer of the text.

#### Findings for Reading Difficulties

This section presents data to answer research question 1- How do online readers perceive their reading difficulties?

## Reading Difficulties

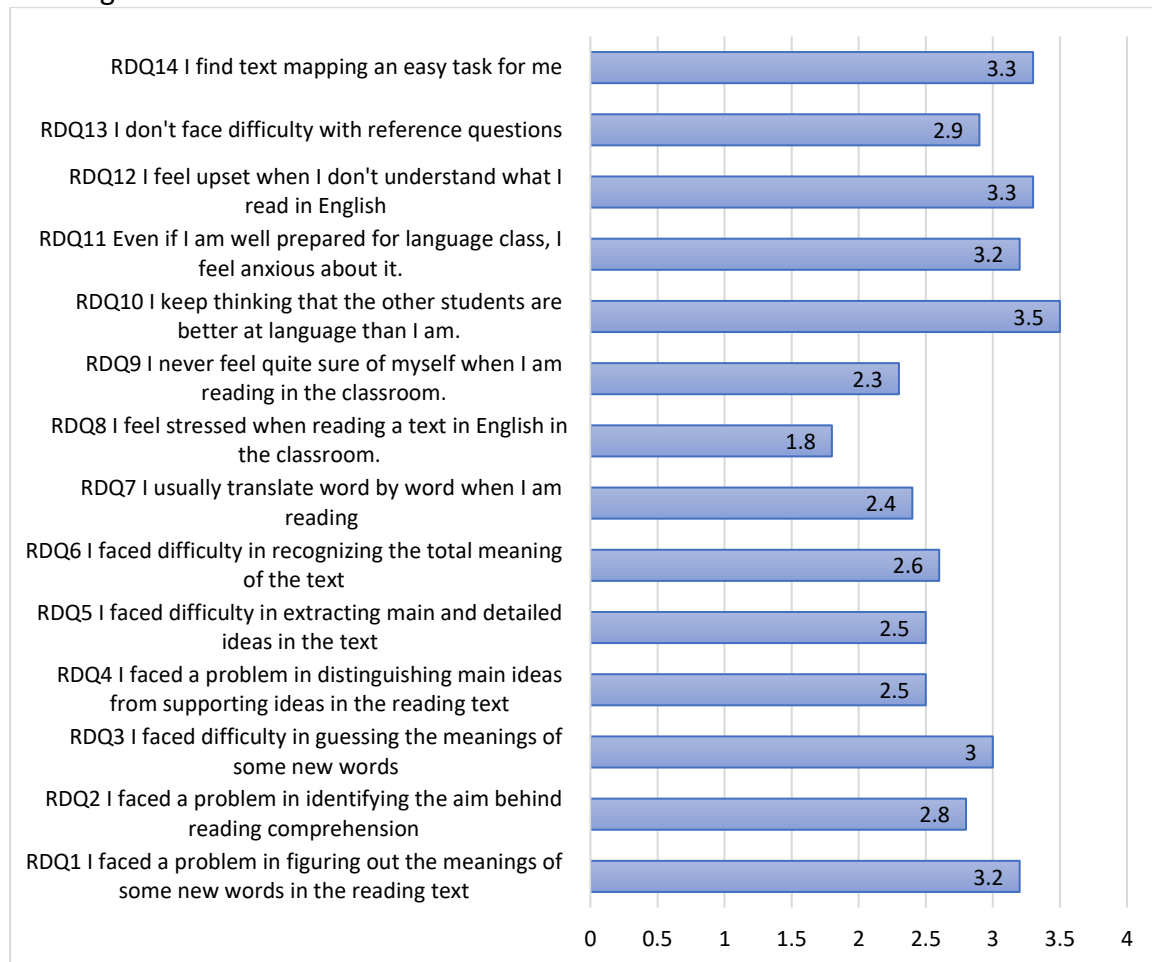


Figure 9- Mean for Reading Difficulties

Figure 9 presents the mean for reading difficulties. The highest mean is 3.5 for the item, “I keep thinking that the other students are better at language than I am”. This is followed by the mean of 3.3 for 2 items, “I feel upset when I don’t understand what I read in English” and “I find text mapping an easy task for me”. The third highest mean is reported at 3.2 for 2 items, “I faced a problem in figuring out the meanings of some new words in the reading text” and “Even if I am well prepared for language class, I feel anxious about it”.

## Findings for Global Reading Strategies

This section presents data to answer research question 2- How do online readers perceive their use of global reading strategies?

## Global Strategies

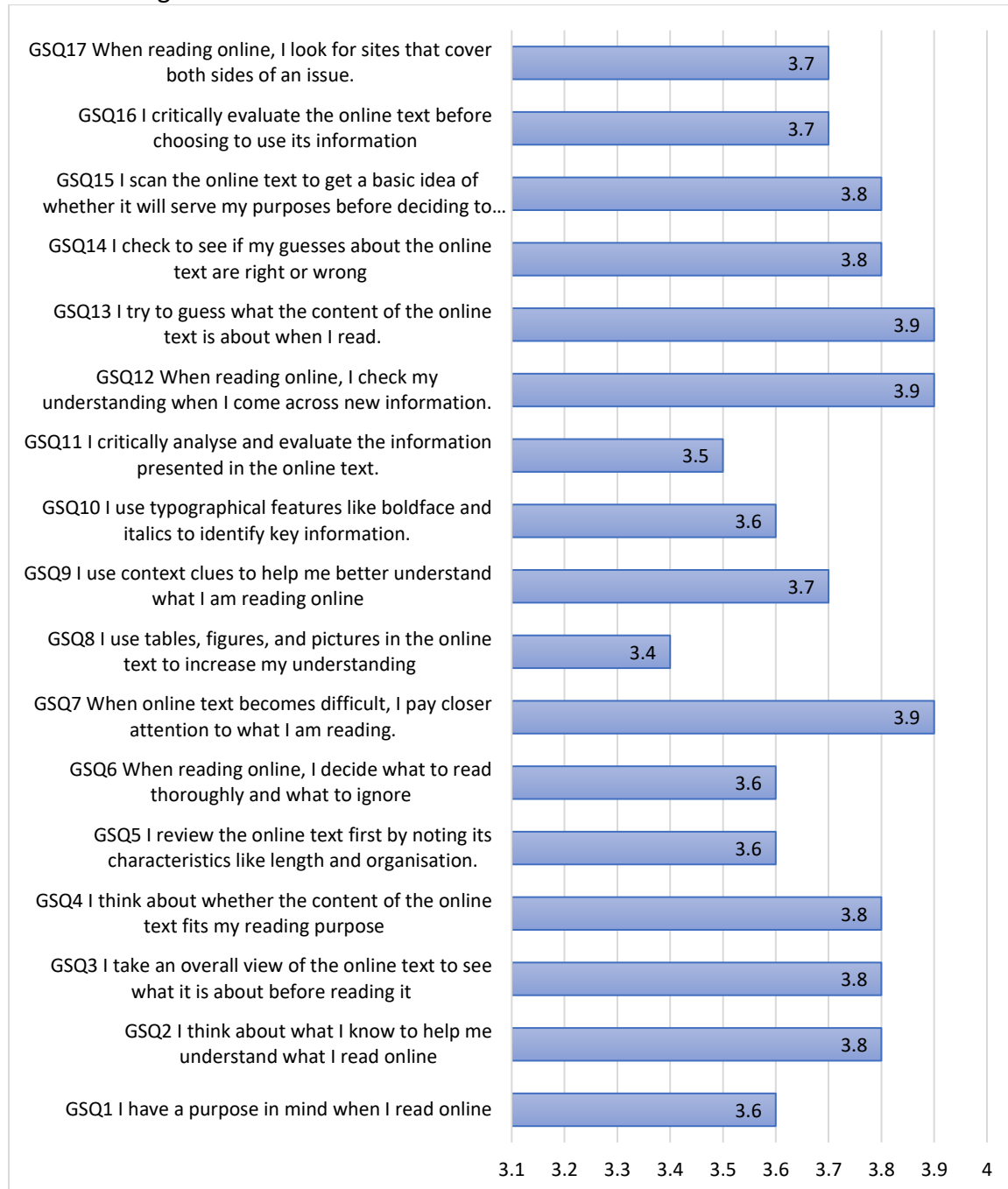


Figure 10- Mean for Global Strategies

Figure 10 shows the means for global reading strategies. The highest mean is 3.9 for 3 items, “When online text becomes difficult, I pay closer attention to what I am reading”, “When reading online, I check my understanding when I come across new information” and “I try to guess what the content of the on-line text is about when I read”. This is followed by the mean of 3.8 for 5 items “I think about what I know to help me understand what I read online”, “I take an overall view of the online text to see what it is about before reading it”, “I think about whether the content of the online text fits my reading purpose”, “I check to see if my guesses about the online text are right or wrong” and “I scan the online text to get a basic idea of whether it will serve my purposes before deciding to read it”. The third highest mean is

reported for 3 items, “I use context clues to help me better understand what I am reading online”, “I critically evaluate the online text before choosing to use its information” and “When reading online, I look for sites that cover both sides of an issue”.

### Findings for Problem-Solving Reading Strategies

This section presents data to answer research question 3- How do online readers perceive their use of problem-solving reading strategies?

#### Problem-Solving Strategies

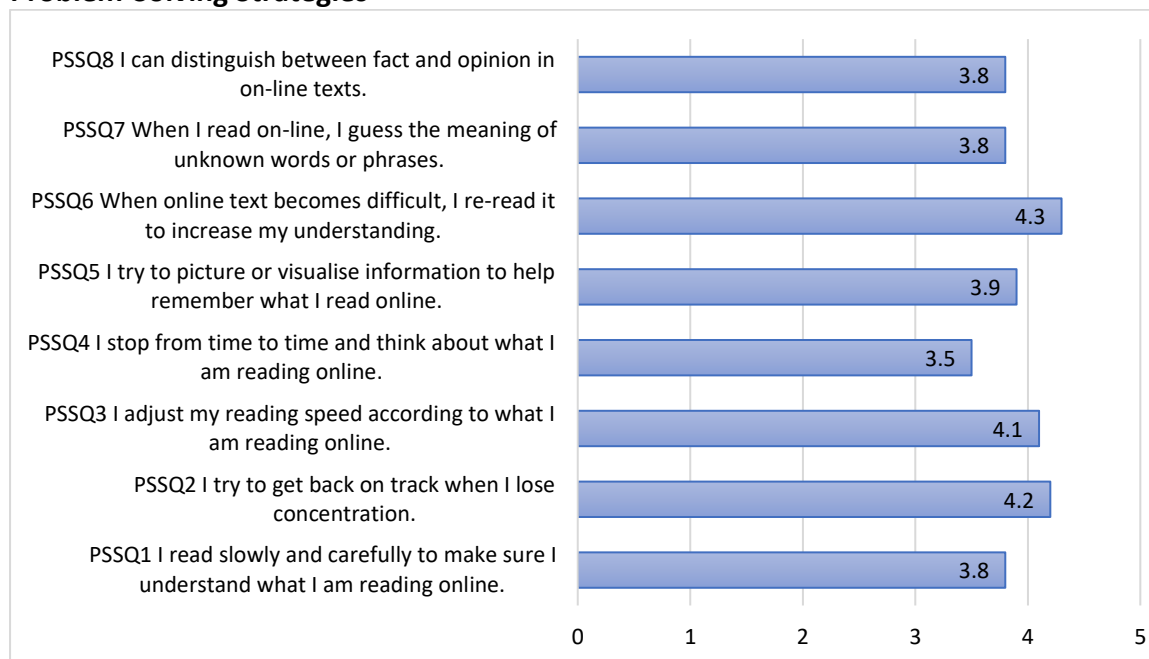


Figure 11- Mean for Problem-Solving Strategies

Figure 11 presents the means for problem-solving strategies. The highest mean is at 4.3 “When online text becomes difficult, I re-read it to increase my understanding”. The second highest mean is 4.2 “I try to get back on track when I lose concentration” while “I adjust my reading speed according to what I am reading online” achieved the third highest mean at 4.1.

### Findings for Support Reading Strategies

This section presents data to answer research question 4- How do online readers perceive their use of support reading strategies?

### Support Strategies

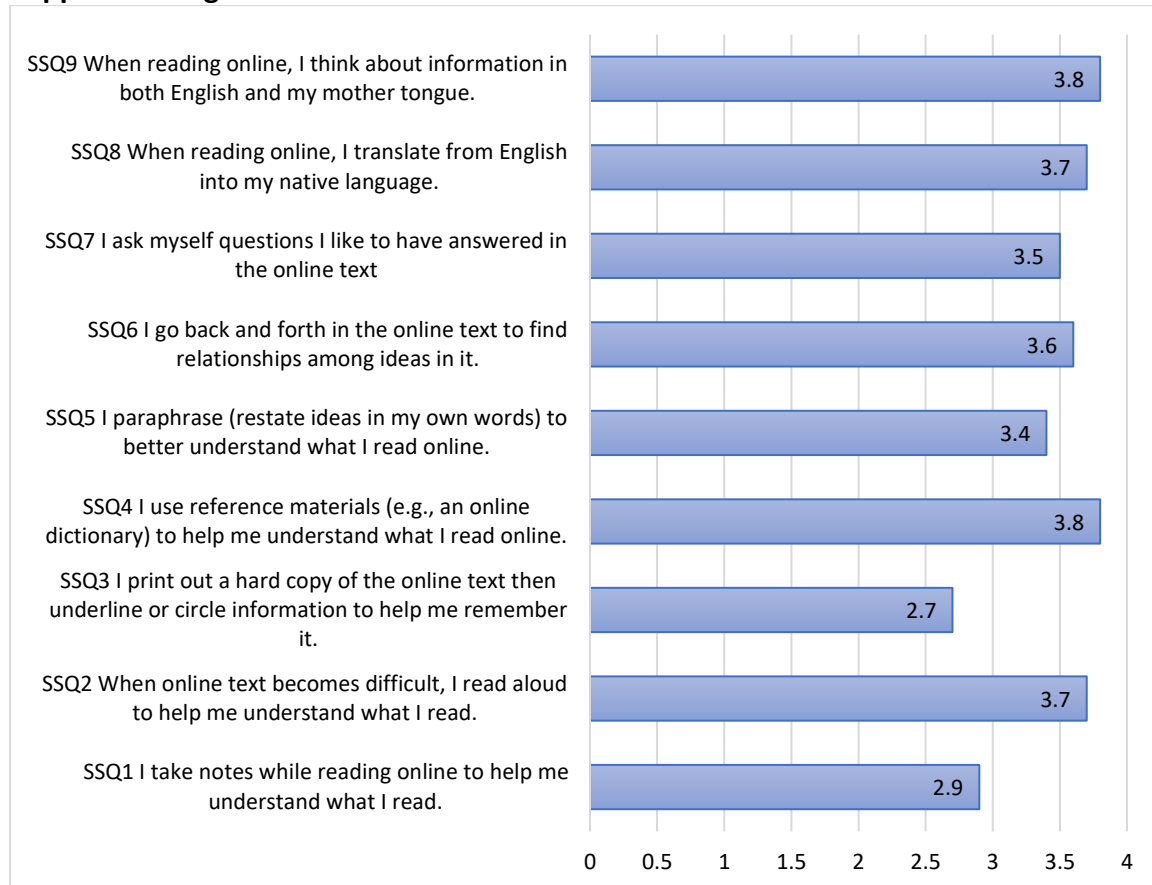


Figure 12- Mean for Support Strategies

Figure 12 shows the mean for support strategies. The highest mean is 3.8 for 2 items, “I use reference materials (e.g., an online dictionary) to help me understand what I read online” and “When reading online, I think about information in both English and my mother tongue”. This is followed by the mean of 3.7 for 2 items, “When online texts become difficult, I read aloud to help me understand what I read” and “When reading online, I translate from English into my native language”.

### Findings for Relationship

This section presents data to answer research question 5- Is there a relationship between reading difficulties and reading strategies for online reading? To determine if there is a significant association in the mean scores between reading difficulties and reading strategies for online reading, data is analysed using SPSS for correlations. Results are presented separately in Tables 3, 4, 5 and 6 below.

Table 3 –  
Correlation Between Reading Difficulties And Global Reading Strategies

		READINGDIFFICULTIES	GLOBAL
READINGDIFFICULTIES	Pearson Correlation	1	.000
	Sig. (2-tailed)		.996
	N	207	207
GLOBAL	Pearson Correlation	.000	1
	Sig. (2-tailed)	.996	
	N	207	207

Table 3 shows there is no association between reading difficulties and global reading strategies. Correlation analysis shows that there is no significant association between reading difficulties and global reading strategies ( $r=.000$ ).

Table 4 –  
Correlation Between Global And Problem-Solving Reading Strategies

		GLOBAL	PROBLEMSOLVING
GLOBAL	Pearson Correlation	1	.660**
	Sig. (2-tailed)		.000
	N	207	207
PROBLEMSOLVING	Pearson Correlation	.660**	1
	Sig. (2-tailed)	.000	
	N	207	207

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 4 shows there is an association between global and problem-solving reading strategies. Correlation analysis shows that there is a high significant association between global and problem-solving reading strategies ( $r=.660^{**}$ ) and ( $p=.000$ ). According to Jackson (2015), coefficient is significant at the .05 level and positive correlation is measured on a 0.1 to 1.0 scale. Weak positive correlation would be in the range of 0.1 to 0.3, moderate positive correlation from 0.3 to 0.5, and strong positive correlation from 0.5 to 1.0. This means that there is also a strong positive relationship between global and problem-solving reading strategies.



Table 5 –  
Correlation between Problem-Solving and Support Reading Strategies

		PROBLEMSOL VING	SUPPORT
PROBLEMSOLVING	Pearson Correlation	1	.592**
	Sig. (2-tailed)		.000
	N	207	207
SUPPORT	Pearson Correlation	.592**	1
	Sig. (2-tailed)	.000	
	N	207	207

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 4 shows there is an association between problem-solving and support reading strategies. Correlation analysis shows that there is a high significant association between problem-solving and support reading strategies ( $r=.592^{**}$ ) and ( $p=.000$ ). According to Jackson (2015), coefficient is significant at the .05 level and positive correlation is measured on a 0.1 to 1.0 scale. Weak positive correlation would be in the range of 0.1 to 0.3, moderate positive correlation from 0.3 to 0.5, and strong positive correlation from 0.5 to 1.0. This means that there is also a strong positive relationship between problem-solving and support reading strategies.

## Conclusion

### Summary of Findings and Discussions

This work sought to find answers to the 5 research questions: 1. How do online readers perceive their reading difficulties? 2. How do online readers perceive their use of global reading strategies? 3. How do online readers perceive their use of problem-solving reading strategies? 4. How do online readers perceive their use of support reading strategies? and 5. Is there a relationship between reading difficulties and reading strategies for online reading?

RQ1: How do online readers perceive their reading difficulties?

The findings of this study revealed that pre-university ESL students struggle with difficulties when reading online materials in English. In particular, the sense of inferiority and low self-confidence that these students faced when comparing their level of proficiency with others. On top of that, they also felt worried about their reading tasks, were frustrated with their inability to understand reading texts, had poor proficiency in English and were anxious about their reading tasks in English. These conditions inhibit the students' reading skills application which directly impacts the comprehension of materials read. The findings highlighted here go beyond merely the external aspects influencing reading difficulties in comprehending online texts, as pre-university ESL readers' challenges in understanding them are interconnected with their feeling of inferiority and anxiety, as well as low self-confidence and poor grasp of the English language. This was also reported by (Castek, Zawilinski, McVerry, O'Byrne, & Leu, 2011), who pointed out that reading online materials requires additional comprehension skills beyond those required to read traditional-print texts, which can be a struggle for low-

proficient readers. The findings call for specifically designed interventions and provision of support mechanisms to deal with the issue of reading difficulties, enhance their skills in reading, and overall comprehension of online reading materials. Addressing the challenges inhibiting their comprehension of online texts would subsequently lead to better academic achievement.

RQ2: How do online readers perceive their use of global reading strategies?

In terms of the global reading strategies employed by pre-university ESL learners, they tend to be more attentive and reflective of what they read to comprehend the online texts better. Furthermore, they proactively engage in the reading process by applying their schemata and contextual clues to make reading comprehension easier. The students seek to obtain opposite perspectives when reading materials on controversial topics. Despite the reading difficulties faced, students attempted to apply effective global reading strategies when dealing with reading tasks.

RQ3: How do online readers perceive their use of problem-solving reading strategies?

When dealing with challenging online reading materials, pre-university ESL learners resorted to a more proactive approach to problem-solving strategies by reading repeatedly to enhance their understanding. They are able to refocus their attention by overcoming their distractions. The students also effectively navigated through the challenges by readjusting their reading pace.

RQ4: How do online readers perceive their use of support reading strategies?

In terms of support reading strategies, students relied on external resources to aid their comprehension of online texts, other than depending on their linguistic competence in both the first and second languages. In addition, vocalising their reading and using translation techniques were also common support strategies used to enhance their understanding of the reading materials. Interestingly, data derived from Malaysian pre-university ESL learners seemed to confirm what Amer et al. (2021) had reported in their study, i.e. during online reading, readers depended on some reading strategies. In the current work, the global reading strategies were reported to be used to get an overall picture of the text read (active engagement with and using schemata), followed by using problem-solving strategies to make sense of what they read. At times, re-reading parts of the text (refocusing attention), and seeking for differing perspectives and help from other sources, which indicates support reading strategies. It is important to highlight these interesting findings as they seemed to transpire pre-university ESL learners' resilience, adaptability and resourcefulness based on the reading strategies they commonly adopted despite the many reading difficulties they encountered in understanding online reading materials.

RQ5: Is there a relationship between reading difficulties and reading strategies for online reading?

A correlation analysis was also done to derive relationships between all the variables. There is an insignificant relationship between reading difficulties and global reading strategies. This signifies that difficulties in reading do not have a direct relationship or impact on pre-university ESL learners' use of global reading strategies. In other words, the students employ the global reading strategies not because of the complexity of online reading materials but rather being familiar with some of the strategies owing to the English language courses

offered at their university. Meanwhile, the strong and statistically significant relationships between GRS and PSRS, as well as PSRS and SRS, illustrate that the students positively utilised the three types of reading strategies.

The employment of these strategies in the context of reading comprehension is not by chance but rather due to practical reasons as in fulfilling their academic tasks and preparing for assessments. At the time of this study, majority of the pre-university ESL learners were in their semester 2, and would have taken several English courses that incorporate some reading such as identifying main ideas and supporting details, contextual clues, reference words, paraphrasing, summarising, synthesising skills, etc. that had directly and indirectly exposed them to some (effective) reading strategies. There are pivotal insights that could be highlighted from these contrasting correlations. The language courses offered and academic requirements at the pre-university level could be among the contextual factors that would have influenced students' decision on and use of reading strategies when reading online materials. Although it was not mentioned in their study that the participants had taken any courses that might have exposed them to some reading strategies, Ozek and Civelek (2006, cited in Par, 2020) reported that those with high language proficiency were better at using more effective strategies (using contextual clues, skipping words, summarising a reading text, using illustrations, skimming for and integrating information while reading), compared to their less proficient counterparts who employed word-per-word translation. Taking this into consideration would give more specific guidelines for language instructors and the institutions in finding effective ways of training learners to use reading strategies through both academic and non-academic activities.

#### Pedagogical Implications and Suggestions for Future Research

From the findings of this research, it is imperative that academicians take note of their students' perceptions regarding the difficulties and anxiety they face when reading online materials. This is due to the fact that the transition from secondary school to tertiary education has presented various challenges to pre-university students, who are probably accustomed to more structured and guided learning experiences in school especially in relation to reading in English. Realising the importance of reading, developing pre-university ESL learners' reading ability is a crucial matter. Educators need to improve on the use of various reading strategies in order to enhance their students' academic success.

Firstly, students need to be equipped with the necessary skills to tackle the demands of more challenging reading tasks, higher volume of academic reading materials, and engage in more independent mode of study which can be overwhelming, specifically when they are not accustomed to the pre-university academic requirements because the learning environment is markedly different from school. Secondly, teachers must design activities that will help them identify, utilise and master appropriate reading strategies to be able to read well, improve comprehension and communication skills, and attain academic success. Thirdly, reading in the digital era may require ESL instructors to reflect on their selection of language activities that enable learners to adopt effective strategies to improve reading proficiency because merely incorporating technology into their lessons may no longer be sufficient. Finally, it is also necessary for pre-university institutions to find ways to leverage technological advancement that can tailor the existing reading instruction framework in ways that will make effective (online) reading strategies common to learners. More importantly, pre-university

ESL learners should apply reading strategies to prepare for more demanding academic requirements and tasks to be successful in their learning.

Based on these discussions, several recommendations are put forward for future work. The current study is limited to respondents that were selected from only one of the few centres of foundation studies in Malaysia. A larger number of subjects used in a similar study might give a clearer picture of the reading strategies used in coping with academic challenges and requirements at pre-university level. A comparative study across the different pre-university programmes would also add more enriched data into the existing literature on ESL learners' proficiency in reading. A more in-depth study should be conducted on determining specific factors influencing ESL learners' effective use of reading strategies other than GPS, PSRS and SRS. Future research work could also analyse more variables affecting learners' use of reading strategies which include varied fundamental aspects like learners' linguistic background, demographic characteristics and many more. Having said that, a limited study like this can be deemed to collectively contribute to the understanding of various reading strategies, and how they influence students' perceptions in their reading abilities by alleviating their anxiety and low self-esteem when trying to master the art of online reading.

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