

## Reading anxiety in online classroom among Malaysian university learners: Lessons from pandemic to post pandemic era



 **Siti Faridah Kamaruddin<sup>1</sup>**

<sup>1</sup>Academy of Language Studies, University Technology Mara Sarawak Branch, Malaysia.

Email: [faridah8543@uitm.edu.my](mailto:faridah8543@uitm.edu.my)

 **Naginder Kaur<sup>2+</sup>**

<sup>2</sup>Academy of Language Studies, University Technology Mara Perlis Branch, Malaysia.

Email: [ninder@uitm.edu.my](mailto:ninder@uitm.edu.my)



(+ Corresponding author)

### ABSTRACT

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Reading anxiety is a situational phobia with physical and cognitive reactions. This anxiety can be facilitative or debilitating and can result in negative impact on reading comprehension, reading competence, and reading strategies. Most previous studies on reading anxiety were carried out in traditional classrooms, but with the sudden transition to online and distance learning (ODL) due to COVID-19, the extent of reading anxiety in ODL among Malaysian university learners and its contributing factors are largely unknown. Therefore, this study was carried out to measure reading anxiety among university learners engaged in ODL as well as to find out its primary contributing factors. The objectives were achieved via a questionnaire administered on 96 learners at a Malaysian university. The participants were found to experience high degree of reading anxiety in ODL. The requirement of attending classes via ODL mode is the main cause for reading anxiety, while self-perceived English proficiency also influences reading anxiety significantly. Therefore, clear and constant instructor feedback is necessary as learners may easily divert from the purpose of ODL reading classes. The outcome of this study helps instructors in knowing the conditions of reading anxiety in ODL and may assist them in post pandemic physical classrooms.

**Contribution/ Originality:** This study originates the phenomenon of reading anxiety in ODL classroom context. The sources and demographic profiles resulted in contrary findings compared to previous studies which explored reading anxiety in physical classrooms. The opposite trends were evident in this study such as learning dependency and lower anxiety that caused language difficulties and stress from instructors.

### 1. INTRODUCTION

Reading anxiety has been widely studied by many researchers in the past as it is known to have debilitating impacts on most second language learners especially in relation to their reading comprehension (Al-Jarrah & Ismail, 2018; Guntur & Rahimi, 2019), reading competence (Aldhanhani & Abu, 2020; Ramirez et al., 2019), and influence learners' preferences in choosing the reading strategies that work best for them (Kim, 2021; Tai & Tang, 2021; Tien, 2017). However, what is mostly known about reading anxiety so far is via circumstances in a fully face-to-face or physical language classroom, as the learner has direct contact with both the instructor and the peers. What is not known extensively, however, is whether learners experience reading anxiety when they are studying independently and remotely from home due to unforeseeable future as a consequence of the global pandemic of COVID-19.

The global health crisis COVID-19 prompted a renewed approach in language learning especially in teaching reading skills to ensure these skills can be taught effectively without direct supervision by instructors. As a result, this disruption in learning prompted many learners to adapt to the learning changes and reading anxiety was predicted to be heightened during the whole process. Since learners are already struggling with constant anxiety in trying to excel with English reading in a physical classroom, their anxiety can be worsened even further when learners are fraught with other issues while being self-isolated at home such as lack of self-discipline, appropriate learning resources and conducive learning environment (Bao, 2020). While there is growing empirical evidence documenting the relationship between reading anxiety in the traditional or physical classroom, there is still limited evidence on the effect of reading anxiety in the context of ODL classroom. Notably, there is yet no consensus on the extent of reading anxiety experienced by Malaysian university learners due to the full implementation of ODL reading classrooms.

Indeed, on one hand, many researchers suggest that instructors need to possess the capability or skills to eliminate reading anxiety by providing a learning environment that can alleviate anxiety (Dong, Liu, & Yang, 2022; Havik & Westergård, 2020; Thacker, 2020). By doing so, learners are less intimidated and are able to reflect on any reading tasks and reflect on mistakes they have made to improve themselves from time to time. Since these past studies focused on instructors' strategies while managing their face-to-face classes, it is notably important to explore the extent of reading anxiety experience in the ODL classes without the physical presence of instructors and other peers.

With that situation in mind, the objectives of this study were to identify the extent of reading anxiety in the ODL classroom, to know the main source(s) of such anxiety, and to see the relationship with the demographic profiles of learners. This study attempted to fill the gap on exploring reading anxiety in the ODL classroom conducted remotely, away from instructors and peers. It is important to fill this gap as the current transition from the pandemic to the post pandemic era phase may disturb learners who have been studying comfortably at home and need to re-adapt to face-to-face learning. The findings from this study would inform instructors to provide a suitable learning environment to welcome learners from such learning strategies that have worked for them for the past two years. The outcome of this study is also expected to assist instructors in understanding reading anxiety in the context of ODL learning. The following research questions served as the framework for this study:

1. What is the extent of reading anxiety in the ODL classroom among Malaysian university learners?
2. What is/are the main source(s) of anxiety experienced by Malaysian university learners when studying reading skills in the ODL classroom?
3. Is there any significant relationship between reading anxiety and other prominent variables such as gender, family income, English proficiency, and self-identified major problems in English reading?

## 2. LITERATURE REVIEW

### 2.1. Reading Anxiety

Reading anxiety can be defined as a specific, situational phobia toward the act of reading that has physical and cognitive reactions (Jalongo & Hirsh, 2010; as cited in Francis, Hudson, Robidoux, and McArthur (2022)). It can be distinguished as facilitative and debilitating anxiety (Scovel, 1978; as cited in Namaziandost, Razmi, Ahmad Tilwani, and Pourhosein Gilakjani (2022)) and when these two types of anxiety are discussed in the context of reading skills, the definition will have a slight difference. In facilitative reading anxiety, learners make more attempts to resolve their reading anxiety while debilitating reading anxiety makes the learners avoid reading tasks to evade any possible source(s) of reading anxiety.

Every language learner may experience different extents of reading anxiety due to different situational causes. In most generic cases, learners tend to experience reading anxiety when they read unfamiliar reading topics, not understanding every word, face inability to pronounce words, have difficulty with word-for-word translation

process, or are easily distracted by funny symbols and punctuation terms (Anwar, Ismail, & Wadi, 2022). Reading anxiety can be systematically grouped into three main categories, namely, top-down anxiety, bottom-up anxiety and classroom reading activities (Noorezam et al., 2022). Top-down reading anxiety stems from the fear of reading due to lack of background and cultural knowledge as well as general reading ability. Cultural knowledge is considered as important because learners are able to comprehend the texts better and increase their motivation in reading (Diep et al., 2022). As a result, learners hold positive attitude towards English reading and thus their reading anxiety can be reduced. Next, learners are prone to have bottom-up anxiety in the situation where grammar and vocabulary interfere with automatic understanding when they read. Lastly, learners with low self-esteem in reading skills are most likely to be affected by classroom reading activities conducted by instructors. In the same vein, reading anxiety is closely related to social anxiety in the context of reading, a phenomenon which decreases reading accuracy among poor readers (Francis et al., 2022).

In relation to the three categories of reading anxiety listed by Noorezam et al. (2022) earlier, the research findings by Adam et al. (2022) found that females show higher anxiety for both top-down and bottom-up anxiety while males show higher anxiety in classroom teaching. The common symptoms for top-down reading anxiety are worry of unfamiliar text and culturally unfamiliar contents, lack of previous knowledge, inability in recognizing the main and minor ideas in the text, inability in expressing feelings and opinions based on what has been read. On the other hand, symptoms for bottom-up reading anxiety can be recognized from feeling of uneasiness when learners are unable to figure out meanings of unknown words and unclear meanings, anxiety when they encounter grammatically unfamiliar sentences, long complex sentences, passive voice, and the inability to recognize different parts of speech. As for classroom teaching, anxiety can be identified from the fear when they are called to elaborate on ideas, read uninteresting texts and translate an English text into their first language. These two studies by Malaysian researchers such as Noorezam et al. (2022) and Adam et al. (2022) have extended the literature pioneered by Saito et al. (1999; as cited in Dang (2022)) which divide the sources of reading anxiety into two aspects which are text features (that is unknown vocabulary, unfamiliar topics and unfamiliar culture) and personal factors (that is fear of making mistakes and worry about reading effects).

There are several implications of reading anxiety that can affect language learners. The first implication is that it may cause learners to experience low reading comprehension. For a learner who experience reading anxiety, their speed of processing would decrease as they need more time to complete the reading task (Loghmani & Ghonsooly, 2012). However, Vazalwar (2011) stated that anxiety is not a controlled feature in reading comprehension and thus, the normal degree of anxiety should give positive effect in comprehension. Furthermore, reading anxiety may also have a debilitating impact in reading competency among learners. This aligns with the tenets of the Processing Efficiency Theory which states that more complex tasks that significantly tax working memory like reading comprehension are more likely affected by anxiety than tasks that do not rely as heavily on working memory such as reading fluency (Tysinger, Tysinger, Diamanduros, & Earley, 2010). To illustrate, learners were more anxious about the post activity of the second language reading task, both for oral and written as compared to the act of reading itself. It is also notable that learners were more anxious about post-oral tasks than post-written. Finally, reading anxiety appears to affect learners' reading style and preference for certain types of reading strategies. Learners with low reading anxiety levels tend to use general reading strategies such as guessing, while learners with high reading anxiety levels employ basic support mechanisms, such as translation, to help themselves understand texts (Chen, 2007; Ghonsooly, 2012; Lien, 2011).

## *2.2. Studies on Reading Anxiety*

Reading anxiety can be decreased when conducted in a flipped classroom. In a study conducted by Gok, Bozoglan, and Bozoglan (2021) reading anxiety in a flipped classroom can be reduced due to pre-class material engagement and the learner-centered environment. Besides that, reading anxiety caused by learners' ability to

complete assigned tasks in the class can be eliminated as peers encourage learners to interact with their classmates and instructor. The fear of being criticized is not something they worry about because they share responsibility and hence, learners can gain confidence in completing reading tasks themselves. Additionally, flipped classroom gives an opportunity for learners to prepare in advance and they can easily express themselves, check and analyze their responses because they are not rushing to convey ideas within the allocated time as practiced in the face-to-face classroom.

Mohamad, Lai, Azmi, and Omar (2021) reviewed the impact of generic language anxiety in ODL classes and found several research findings on language anxiety among learners. Referring to Pichette (2009) study, a learner with a high degree of language anxiety opted to register in an online course to seek security in anonymity. At the same time, learning in an online course can also contribute to language anxiety due to lack of familiarity with the instructional delivery mode selected by instructors to address the need for virtual communication, using audio and video tools. Mohamad et al. (2021) also raised an important issue whether novice ODL learners experience greater language anxiety compared to intermediate and advanced learners or is the language anxiety experienced by these online learners caused by the digital learning environment?

Apart from the usual factors identified for language anxiety based on the prominent study by Horwitz, Horwitz, and Cope (1986); Huynh (2021) identified the emerging sources of language anxiety in the ODL classroom due to the sudden transition. These emerging sources are crucial as they explain the fluctuations of anxiety levels over the remote learning period, as learners experience the highest anxiety levels in the first week which slowly decreases by Week 2 and 3, while increasing again by Week 4 before decreasing by the final week of Week 5. The sources listed are readiness among instructors and learners, the availability of equipment and the stability of Internet connection as well as learner autonomy. These findings seem to answer the issue raised by Mohamad et al. (2021) earlier where these emerging sources that exclusively occur in the ODL classroom might be caused by the digital learning environment instead of language anxiety itself.

These three studies demonstrated that the level of language anxiety experienced by learners in online classrooms varies based on the factors that have been identified. The conduct of reading class through online setting can either decrease or increase the level of language anxiety experienced and there is a pattern observed. The online classroom can decrease the level or language anxiety when the factors that contribute to language anxiety come from the learner themselves (that is learning anonymously and the ability to complete assigned task when given time flexibility) while at the same time, the level of language anxiety can be increased due to online classroom when the contributing factor comes from outside such as the non-conducive learning environment at home or the lack of readiness to deal with the unfamiliarity of online learning. It is also important to note the scarcity of studies to investigate reading anxiety in the context of online classroom because literature search has found studies pertaining to language anxiety in general, instead of focusing on the direction of reading anxiety, per se.

### 2.3. Online Classroom

The transition to online classroom has been hastened due to the global pandemic which has triggered the fight-or-flight response in higher education managements. Online learning can be defined as learning that involves interactions that are mediated using digital, typically Internet-based technology (Greenhow, Graham, & Koehler, 2022). Online learning is the umbrella or a big tent to many other terms including distance learning, e-learning, web-based learning, digital learning, computer-based learning, distributed learning, self-directed learning, informal learning, and personalized learning (Singh & Thurman, 2019).

Online learning can be further categorized into three M's namely modality, media, and method (Graham, 2021; as cited in Greenhow et al. (2022)). When defining online learning through the perspective of modality, it involves the physical time or place dimensions of the learning environment. Early definitions in the field like distance

learning and distributed learning focused on the place of learning (distributed vs. in person). More recently, definitions have emphasized the time between learning communications or interactions (synchronous vs. asynchronous). From media perspective, online learning involves the use of physical tools or technology to deliver or mediate instruction. Terms such as web-based learning or e-learning emphasize the use of digital or Internet-based tools as opposed to non-digital tools or traditional broadcast media like radio or television (digital vs. non-digital tools, Internet-based vs. traditional broadcast media). Lastly, the perspective of method would define online learning in relation to teaching strategies or pedagogies used in formal instruction as well as learning practices common to informal learning. Pedagogical methods are sometimes implicitly tied to definitions. For example, the term flipped instruction typically refers to putting direct instruction into online videos, so classroom time can be used for more applied activities.

For the current study, the term online classroom fits the modality perspective as it concerns with language learning in a fully online setting. In assisting scholarly communities in creating knowledge that influences research and practice in online learning context, Greenhow et al. (2022) propose five important lenses which are community, engagement, pedagogy, equity, and design-based research.

#### 2.4. Conceptual Framework

Figure 1 shows the factors that influence reading anxiety in online classroom as suggested by Tsai (2012). The five anxiety sources such as general worries, class performance, peer pressure, stress from the instructor and language difficulties are derived from the prominent study by Horwitz et al. (1986) on the generic language anxiety, which steer the direction to reading anxiety. The other two factors, namely, computer use and the purpose of attending online classes are included to suit the online learning context. For this study, open and distance learning (ODL) is used interchangeably with online learning, with all factors as shown in Figure 1.

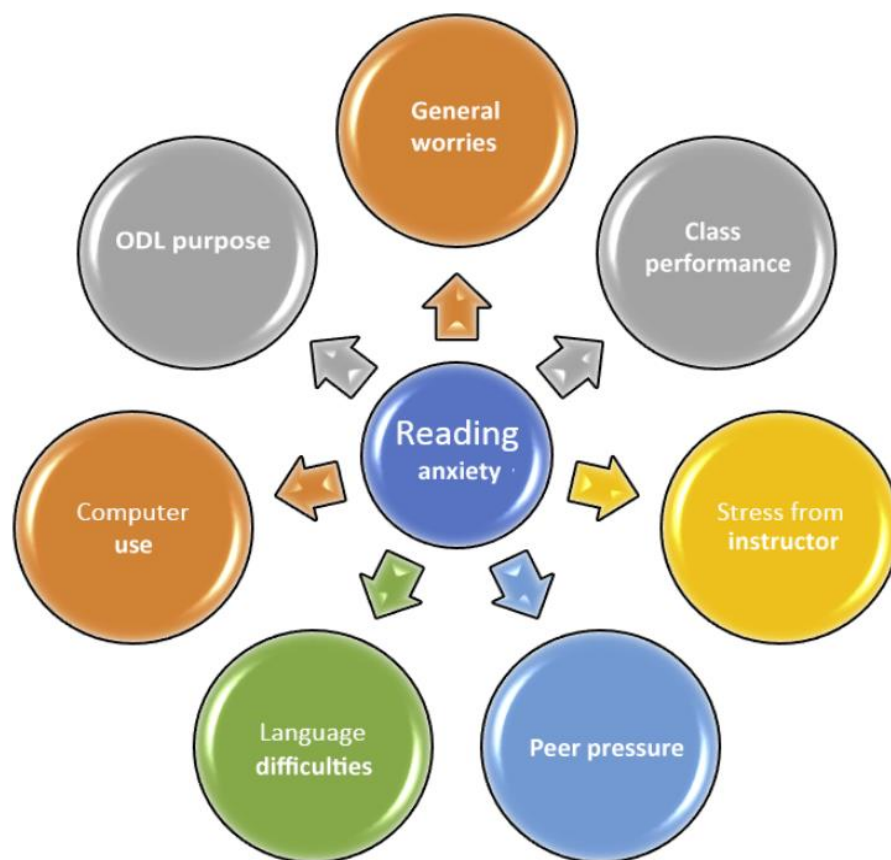


Figure 1. Factors which influence reading anxiety in online classroom.  
Source: (Tsai, 2012).



### 3. METHODOLOGY

#### 3.1. Participants

The participants of this study comprised 96 diploma level learners from a public university in Malaysia, all of whom were in Semester 2. English reading skills was taught to learners in this semester according to their study plan. From the overall number of participants, 34 were males and 62 were females. In terms of family income, 57 learners indicated their family income to be B40 (below Ringgit Malaysia (RM) 4360.00/month), 34 were from M40 (RM4360.00–RM9619.00/month) while five learners were from T20 (>RM9620.00/month).

For self-perceived English proficiency, four learners considered their English to be very poor, 37 were bad, 54 were good while only one considered herself to have very good English language proficiency. In addition, learners also identified their major problems in reading with five options. Table 1 presents the frequency and percentage of the major problems in reading as perceived by these learners.

Table 1. Major problems in reading.

Reading problems	Frequency	Percent	Valid percent	Cumulative percent
Phonics	8	8.3	8.3	8.3
Phonemic awareness	4	4.2	4.2	12.5
Vocabulary	54	56.3	56.3	68.8
Fluency	14	14.6	14.6	83.3
Comprehension	16	16.7	16.7	100.0
Total	96	100.0	100.0	

#### 3.2. Design and Instrument

This study employed a quantitative design in exploring the reading anxiety that may exist in the online classroom as learners depend on online learning and studying from home independently. A questionnaire consisting of close-ended items was adopted and adapted from Anxiety Questionnaire for Traditional Writing Class which has been previously used by Tsai (2012). The questionnaire had 37 items in seven variables which included general worries, class performance, stress from instructor, peer pressure, language difficulties, computer use, and purposes of attending ODL. The items in the original questionnaire were adapted from writing skills to reading skills to suit the needs of this current study. This questionnaire was selected as it was relevant to the online classroom setting as Tsai (2012) compared the writing anxiety in traditional classroom and online classroom.

This questionnaire gathered the information from participants who were studying reading skills via online classroom from March to August 2020. The questionnaire was administered through an online survey using Google Form from June to August 2020. Before responding to the questionnaire, every participant had provided their consent to participate in the online survey. The online survey was distributed through messaging applications namely WhatsApp and Telegram by the respective instructors who were teaching the reading course to their classes. The participation in this study was voluntary as the overall semester 2 learners from that particular semester numbered 273 learners but only 96 (35.16%) answered the survey completely.

#### 3.3. Data Collection and Analysis

The questionnaire items were analyzed using descriptive and inferential analysis of the research questions. The analysis was conducted based on Tsai (2012) in terms of analysis method with similar objectives and variables. According to Tsai (2012), in order to ensure internal consistency reliability, four steps are undertaken. Therefore, the average of every question in the same category was computed and served as the raw data, labeled with general worries, class performance, stress from the instructor, peer pressure, language difficulties with additional categories of computer use and purposes of attending ODL to suit the online classroom setting. Further, items which were not significantly correlated to other items (at 0.05 level or better) were excluded. One-way Analysis of Variance (ANOVA) was subsequently employed to ascertain the reliability of the items for each category. Finally, all the

other intra-and-inter categories of anxiety in online classroom were examined with the same procedure of Pearson correlation examination. With reference to Table 2, the categories of stress from instructor, computer use, and purpose of attending ODL class were found to be non-significantly correlated with other categories for online reading class.

In addition, Cronbach’s alpha was ascertained to obtain a better estimate of reliability (Tavakol & Dennick, 2011). The overall reliability index reported for the scale based on Cronbach’s alpha is  $\alpha = 0.90$  (Scheerens, 2010; as cited in Nezakatgoo (2018)). In the present study, the Cronbach’s alpha was  $\alpha = 0.902$ .

#### 4. FINDINGS AND DISCUSSIONS

##### 4.1. The Extent of Reading Anxiety in Online Classroom among Malaysian University Learners

The extent of anxiety level (see Table 3) was determined using the mean interpretation as suggested by Berowa (2018). The results on Table 4 show the total mean score of the overall questionnaire items and the different degrees of anxiety according to categories respectively. Based on Table 4, the total mean score ( $M = 3.543$ ,  $SD = 0.439$ ) revealed that the participants experience a high level of anxiety when learning reading skills in online classroom.

Table 2. Inter-category correlations of the online reading class.

Anxiety factors		General worries	Class performance	Stress from instructor	Peer pressure	Language difficulties	Computer use	ODL purpose
General worries	Pearson correlation	1	0.513**	0.445**	0.540**	0.593**	0.319**	0.010
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.002	0.925
Class performance	Pearson correlation	0.513**	1	0.568**	0.501**	0.667**	0.394**	0.067
	Sig. (2-tailed)	0.000		0.000	0.000	0.000	0.000	0.517
Stress from instructor	Pearson correlation	0.445**	0.568**	1	0.432**	0.608**	0.325**	0.085
	Sig. (2-tailed)	0.000	0.000		0.000	0.000	0.001	0.408
Peer pressure	Pearson correlation	0.540**	0.501**	0.432**	1	0.748**	0.285**	0.169
	Sig. (2-tailed)	0.000	0.000	0.000		0.000	0.005	0.099
Language difficulties	Pearson correlation	0.593**	0.667**	0.608**	0.748**	1	0.366**	0.149
	Sig. (2-tailed)	0.000	0.000	0.000	0.000		0.000	0.147
Computer use	Pearson correlation	0.319**	0.394**	0.325**	0.285**	0.366**	1	-0.038
	Sig. (2-tailed)	0.002	0.000	0.001	0.005	0.000		0.715
Purpose for ODL	Pearson correlation	0.010	0.067	0.085	0.169	0.149	-0.038	1
	Sig. (2-tailed)	0.925	0.517	0.408	0.099	0.147	0.715	

Note: \*\* correlation is significant at the 0.01 level (2-tailed).

Table 3. Mean interpretation to indicate the severity of language anxiety (Berowa, 2018).

Mean	Interpretation
4.20–5.00	Very high
3.40–4.19	High
2.60–3.39	Neutral
1.80–2.59	Low
1.00–1.79	Very low

Table 4. Mean anxiety levels by categories.

Anxiety factors	Mean	Std. deviation
General worries	3.389	0.404
Class performance	3.539	0.548
Stress from instructor	3.422	0.601
Peer pressure	3.815	0.845
Language difficulties	3.518	0.712
Computer use	3.224	0.852
Purposes of ODL	3.893	0.477
Overall	3.543	0.439
N = 96		

To answer the first research question, the extent of reading anxiety experienced by Malaysian university learners in online classroom was found at a high level. This finding contrasts previous studies as the pre-service English teachers in Turkey experienced a decreased reading anxiety when learning in online classroom (Gok et al., 2021) while moderate level of reading anxiety was experienced by English as a Foreign Language (EFL) learners in Indonesia (Setiawan, 2020) and Japan (Kawabata, 2022). The discrepancies of reading anxiety level as compared to the participants from these countries show that the participants in this study received constant feedback and guidance from their instructors when completing reading tasks at home so that they would not be diverted from the clear purpose of attending ODL. The feedback and guidance from their instructors served as a motivation and confidence to boost them and understand that they need to make progress in learning despite learning independently at home. It also indicates that university learners at diploma level who are still adapting with learning styles in university needs to be trained with self-regulated learning to remove the high dependency of language learning from their instructors.

#### 4.2. The Main Source of Reading Anxiety in Online Classroom

With reference to Table 4, the extent of reading anxiety in online classroom is mainly contributed by the purpose of attending ODL Table 5, followed by peer pressure Table 6 and class performance Table 7. The participants were least worried about computer use Table 8 and general worries Table 9 when learning reading skills in online learning setting. Other factors such as language difficulties Table 10 and stress from instructors Table 11 were also reduced when the reading skills were taught through the medium of online classroom.

Table 5. The purpose of attending ODL.

Questionnaire items (N = 96)	Mean	SD
I take this course in order to enhance my reading.	4.156	0.654
I take this course in order to pass the Malaysian University English test (MUET).	4.271	0.703
I take this course in order to obtain free lesson and to improve my reading ability.	4.313	0.654
I take this course in order to accompany my friends.	2.833	0.991

Table 6. Peer pressure.

Questionnaire items (N = 96)	Mean	SD
I am afraid that my other classmates will laugh at my reading performance.	3.448	1.141
I keep thinking that my other classmates are better at languages than I am.	3.990	0.957
I always feel that my other classmates read better than I do.	4.000	0.894
I feel very self-conscious about my answers for reading exercises being read by other classmates.	3.823	0.871



Table 7. Class performance.

Questionnaire items (N = 96)	Mean	SD
I am usually at unease during tests in my online reading class.	3.479	0.794
I worry about making mistakes in the online reading class.	4.073	0.785
It would bother me very much to take more online reading classes.	3.552	0.869
I get nervous when the online reading instructor asks me to read aloud what i haven't prepared in advance.	3.635	0.985
I feel pressure to prepare very well for the online reading class.	3.542	0.917
Even if I am well prepared for the online reading class, I still feel anxious about it.	3.792	0.832
I often feel like not going to my online reading class.	2.833	1.033
I can feel my heart pounding when I'm going to be called on to answer comprehension questions in the online reading class.	3.896	0.912
The online reading class moves so quickly I worry about getting left behind.	3.594	0.980
I feel more tense and nervous in my online reading class than in my other classes.	3.188	0.898
When I'm on my way to the online reading class, I feel very uneasy and unsure.	3.344	0.868

Table 8. Computer use.

Questionnaire items (N = 96)	Mean	SD
I panic when I don't know how to use the computer.	3.135	1.062
I feel nervous when I don't understand the English reading instruction on the screen.	3.313	0.955

Table 9. General worries.

Questionnaire items (N = 96)	Mean	SD
I never feel quite sure of myself when I am reading in class.	3.281	0.855
I worry about the consequences of failing this online reading class.	4.042	0.832
I don't understand why some people get so upset over online reading classes.	2.927	0.849
In language classes, I can get so nervous I forget things I know.	3.875	0.874
During language class, I find myself thinking about things that have nothing to do with the course.	3.094	0.872
I would be nervous writing to native speakers (i.e., real English people)	3.854	0.833
The more i study for a reading test, the more confused I get.	3.156	0.955
I feel not confident when I practice English reading at home	2.885	1.004

Table 10. Language difficulties.

Questionnaire items (N = 96)	Mean	SD
I start to panic when I give wrong answers for reading exercises in online reading.	3.625	0.954
I feel overwhelmed by the number of reading skills I have to learn to read any reading materials.	3.500	0.632
It embarrasses me to read aloud in class when I make mistakes of pronunciation.	3.479	1.076
I get nervous and confused when I read without applying any concept of reading skills in mind.	3.469	0.858

Table 11. Stress from Instructors.

Questionnaire items (N = 96)	Mean	SD
I get nervous when I don't understand every word the instructor says.	3.792	0.820
I tremble when I know that I'm going to be called on in the reading class.	3.594	0.828
I get upset when I don't understand what the reading instructor is correcting.	3.427	0.992
I am afraid that my reading instructor is ready to correct every mistake I make.	2.875	1.079

For the second research question, the main source of anxiety experienced by Malaysian university learners when learning reading skills in online classroom is related to the purpose of attending ODL. The learners are aware that they need to improve their reading ability since reading lessons are conducted virtually. However, the clarity of their learning awareness can be fuzzy at times as they feel alone from the remote and self-regulated learning when it is conducted fully online. Thus, having a clear purpose when attending reading class via online medium could

motivate learners to proceed with learning despite the sudden disruption such as the global pandemic. As supported by Díaz-Noguera, Hervás-Gómez, De La Calle-Cabrera, and López-Meneses (2022), university learners' motivation acquires greater threshold than autonomy, whose threshold in turn, is greater than that of digital pedagogy in the ability to adapt to online teaching and that the capacity of adaptation to the online modality is explained by the perception that university learners have of the usefulness, products, and learning outcomes, among others. Additionally, having a clear purpose for attending ODL would lessen reading anxiety because learners with greater feeling of belonging and mattering would yield positive reactions and learning adaptability of learners (Díaz-Noguera et al., 2022).

It is also interesting to note that language difficulties and stress from instructors are not prominent factors in contributing to the reading anxiety in online classroom. The finding of the present study is supported by Tsai (2012) and Marandi and Seyyedrezaie (2017) as these previous studies compared the traditional classroom and online classroom and found that the learners in traditional classroom experienced higher level of anxiety. In the context of present study, the learners were not afraid to give wrong answers and thus, language difficulty was not a prime contributing factor to their reading anxiety because their facial expressions were not visible as most of learners did not turn on their camera during online classroom.

Besides, the feeling of being overwhelmed when learning several reading skills can be reduced as the learners can study these skills in a much flexible time, aided with the recorded lessons by instructors. As for stress from instructor, anxiety can be reduced when learners do not understand their instructors' explanations, they can text their instructors using other channels such as WhatsApp or Telegram for clarification. Moreover, the learners are not anxious from being name-called in the online classes since most of them are veiled behind a blacked-out camera. When they do not respond to their instructor, the instructor would call out one name after another to ascertain who is actually 'present' online. This finding informs instructors about the need to change their teaching style especially during uncomfortable situations such as correcting mistakes and giving ample time for learners to prepare their answer.

The role of the instructors has changed drastically in online classroom from the perspective of their ability to monitor, guide and deliver the course, adjusting based on learner's needs, goals, and interests, as and when they arise (Kaur & Bhatt, 2020; Vikas & Mathur, 2022). Besides, instructors should plan and innovate activities during sessions so as to encourage active participation among learners (Jala, 2022) to avoid favoritism or inequality where the similar active online learner will be called to keep the teaching and learning process running smoothly.

**Table 12.** One-way ANOVA factor analysis of gender, family income, self-perceived English proficiency and major problem with reading skills.

Variables		Sum of squares	Df	Mean square	F	Sig.
Gender	Between groups	20.292	87	0.233	1.120	0.474
	Within groups	1.667	8	0.208		
	Total	21.958	95			
Family income	Between groups	33.333	87	0.383	6.130	0.005**
	Within groups	0.500	8	0.063		
	Total	33.833	95			
Self-perceived English proficiency	Between groups	33.167	87	0.381	4.575	0.013*
	Within groups	0.667	8	0.083		
	Total	33.833	95			
Major reading problem	Between groups	104.458	87	1.201	3.842	0.023*
	Within groups	2.500	8	0.313		
	Total	106.958	95			

**Note:** \*\*The mean difference is significant at 0.01 level.

\*The mean difference is significant at 0.05 level.

#### 4.3. Implication to Reading Anxiety Levels in regard to Demographic Variables

One-way ANOVA was performed since there were four variables to be tested against the extent of reading anxiety with the need to identify whether there is a large difference between means of these variables with one another. Using Tukey's HSD (honestly significant difference) test in identifying the significance of these variables such as gender, family income, self-perceived English proficiency, and major problems with reading skills on the level of reading anxiety (Table 12), it was found that the level of reading anxiety experienced by the participants in this study was significantly influenced by family income, self-perceived English proficiency, and major problems with reading skills. Contrastingly, there was no significance between gender and reading anxiety. In other words, there is no difference in terms of the level of reading anxiety experienced by either male or female learners.

**Table 13.** Pearson correlation of reading anxiety with gender, family income, self-perceived English language proficiency, and major problems in reading skills.

Independent variables	Pearson correlation	Sig. (Two tailed)
Gender	-0.012	0.908
Family income	-0.042	0.682
Self-perceived English proficiency	-0.268**	0.008
Major problems in reading skill	-0.119	0.248

Note: \*\* Correlation is significant at the 0.01 level (2-tailed); n = 96.

Pearson correlation was performed to measure if these variables had influenced the level of reading anxiety at a certain degree. Table 13 shows that only self-perceived English proficiency significantly influences the increase or decrease in reading anxiety level. In this case, the negative correlation ( $r = -0.268$ ) indicates that when the learners perceive themselves as good in English, they experience lower reading anxiety and vice versa.

It can be concluded that the extent of reading anxiety is significantly influenced by family income, self-perceived English language proficiency and major problems experienced by learners in reading skills. However, only after Pearson correlation was conducted, it was found that self-perceived English proficiency is the only variable that influences the extent of reading anxiety at a higher degree compared to family income and major reading problems.

Findings from this research question revealed that gender does not have a significant influence that can contribute to reading anxiety while the self-perceived English proficiency is identified as the main cause to reading anxiety. This finding on gender is consistent with previous study by Um, Tubsree, and Surasin (2013) which showed no significant difference between reading anxiety with male and female learners. The finding from this study on self-perceived English proficiency corroborates with Bensalem (2018) finding as learners who felt more proficient in English were significantly less likely to suffer from foreign language anxiety.

The finding of this study is also supported by Zin and Rafik-Galea (2010) as they hypothesize second language learners to be more likely to suffer high anxiety when they have low self-perception of ability in performing language tasks. It is assumed that poor proficiency level causes skepticism in learners' ability to perform reading tasks, particularly when they are assessed on comprehension performance. This finding is also related to the qualitative findings by Um et al. (2013) where learners who perceived themselves as less proficient developed a mental block and thus, faced more difficulties with linguistic features of text, such as difficult vocabulary, unfamiliar topics, uninteresting topics, lengthy and detailed texts as well as complicated grammatical structure.

## 5. CONCLUSIONS AND RECOMMENDATIONS

The aim of this study was to find out the extent of reading anxiety which exists in online reading classes as well as to find out the main source of reading anxiety. This study also examined the other demographic variables that may influence reading anxiety such as gender, family income, self-perceived English proficiency and major

problems in reading skills. A total of 96 learners participated in this study and multiple statistical analyses were employed in consideration of internal consistency and reliability.

The findings and discussions from this study have contributed some lessons and reflections for instructors while slowly transitioning the learning mode from pandemic to post pandemic and from the face-to-face classroom to online classroom and back to the face-to-face classroom. Thus, what are the practices that should be further implemented, and which one should be terminated?

As most instructors and learners return to traditional and physical classroom again, the emerging literature (see (Clark, Kaw, & Braga Gomes, 2022; Liu, 2022; Yu, 2021)) has suggested that blended learning, whether it is known as hybrid learning, adaptive learning or flipped instruction will be key to post pandemic education. The concept of blended learning is suggested because when students return to traditional classroom, the practice of ODL during pandemic should not be abandoned completely and should be practiced continuously. However, what is important here is that instructors must embrace their facilitative role of scaffolding in enhancing learners' learning outcomes through interaction (Hung & Nguyen, 2022). Hence, the good practices which have been applied during ODL should be continuously implemented by integrating the face-to-face classroom with any technological platform that can aid learning. Based on the finding in this study, it is identified that the main source of reading anxiety is learners' purpose of attending online classroom. This shows that Malaysian university learners need clear and constant guidance from instructors. Thus, it can be predicted that once the normal language learning pertaining reading skills is resumed, learners may not experience as much reading anxiety with the absence of full online lessons, which means learners need not overly focus on their social presence in online setting.

At the same time, the return to physical classroom post pandemic will also observe some required changes to teaching practices. The findings from this study have revealed that language difficulties and stress from instructors are not prominent factors that can contribute to reading anxiety in online classroom, as is the case in the physical classrooms. This finding informs instructors to be less intimidating to their learners in terms of stern facial expressions and the way they manage discussions for reading tasks. As mentioned earlier, providing continuous scaffolding in the traditional classroom setting is required as learners have been accustomed to texting their instructors via instant messages in the past two years of their learning. Nevertheless, despite learners' dependence on their instructors in reading lessons, the instructors must draw a distinct line in the amount of necessary scaffolding versus learning autonomy and self-regulated learning that need to be instilled among university learners.

Some recommendations are hereby proposed to assist future researchers in pursuing the topic of reading anxiety in online setting and the improvements for this study. When referring to the questionnaire items under Computer Use, it is recommended that future researchers consider other technological devices that learners may use such as mobile phones and tablets as well as the preferred learning management system. As what has been mentioned by Mohamad et al. (2021) earlier, is reading anxiety in online context caused by the reading lessons or the difficulties learners face with online learning medium? Therefore, it is recommended that the items under Computer Use be revised based on the learning mediums preferred by learners and when their learning preferences are not met, it can cause reading anxiety among learners.

In addition, more studies need to be conducted in finding the correlation between major reading problems which are phonics, phonemic awareness, vocabulary, fluency and reading comprehension and the extent of reading anxiety. The findings from this study only reveal the frequency of learners who self-perceive themselves in having these five essential components of reading. However, it is unclear which reading problem would significantly influence reading anxiety. Therefore, future researchers can conduct correlational studies by focusing closely on these five major problems (see Table 1) which contribute or lead to the extent of reading anxiety among Malaysian university learners. Moreover, a study on different learner backgrounds such as social science versus science and

technology may lead to different results as the reading problems encountered by these different sets of learners may vary.

In summary, the study of reading anxiety in online environment is very much necessary in understanding how learners are adapting with the sudden transition brought by the unexpected pandemic. Since the degree of reading anxiety in online classroom may vary from one culture or country to another, more research can contribute to understanding why reading anxiety may be more or less severe to language learners in certain countries.

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