



EXPLORING TERTIARY ESL LEARNERS' AFFECTIVE ATTRIBUTES TOWARD ONLINE READING

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Abstract:

The Covid-19 pandemic has significantly accelerated digitization of higher education worldwide and reading online has become vital for students to grasping new knowledge and understanding course contents. As educators, it is important to understand our students' affective attributes towards the new normal of reading online. Within this scope, the study aims to develop a self-report instrument on affective attributes towards online reading among tertiary ESL learners, and to examine the specific affective attributes students display towards online reading. The Survey of Online Reading Affective Attributes was adapted and developed to measure tertiary ESL learners' affective attributes towards online reading for academic and study-related purposes. This questionnaire was administered to 130 tertiary ESL learners. Principal components analysis was performed and the results confirmed the three affective factors were self-efficacy, motivation, and anxiety. In addition, the analysis of the survey data revealed that the majority of students, in general, were relatively self-efficacious, motivated, and less anxious towards online reading. However, it was discovered that nearly one-third of students were relatively anxious towards online reading and one-fifth of them were less self-efficacious. The limitations of this study and pedagogical recommendations are further discussed in this paper.

Keywords: online reading; affective attributes; self-efficacy; motivation; anxiety

INTRODUCTION

The Covid-19 pandemic has expedited digitization of higher education worldwide and made online reading an inevitable source of learning for tertiary ESL learners. Students has become much more familiar with online reading, and they undertake their classes on online platforms since the start of the Covid-19 outbreak. They need to read online to obtain new knowledge, grasp lesson contents as well as complete assignments. For ESL learners at the tertiary level

who are already loaded with heavy cognitive tasks from traditional printed text reading now face new challenges from online reading (Li, 2020).

Most of the studies on online reading comprehension concentrated on the largely cognitive processes, however, affective attributes are also influential in the process (Hamed et al., 2020). For example, poor self-efficacy restrains readers from using reading strategies; low level of motivation in a task has a detrimental influence on overall behavior with regard to self-regulated learning; anxiety may interrupt the cognitive process during reading (Zaccoletti et al., 2020).

A preliminary study by O'Byrne & McVerry (2009) developed an instrument for online reading dispositions. In this instrument, five subdimensions related to online reading dispositions were identified, including critical stance, reflective thinking, persistence, flexibility, and cooperation. However, this study also noted that other dispositional attributes may be influential within online reading and suggested additional studies to continue to explore this area.

In another study on reading dispositions, Putman (2014) developed a tool for examining online reading attitudes and behaviours. This instrument is composed of self-efficacy, motivation, anxiety, self-regulatory behaviours, and value. Putman et al. (2020) in another study further examined the cognitive strategies and affective attributes toward online reading, and classified self-regulation, cognitive and behavioral engagement as cognitive strategies, while self-efficacy, motivation and anxiety as affective/ dispositional attributes associated with online reading. In this study, the structure of affective attributes toward online reading developed by Putman et al. (2020) is employed by the researcher, with self-efficacy, motivation and anxiety representing the three main affective factors toward online reading.

First, self-efficacy refers to one's beliefs about their capabilities to succeed in specific tasks (Pajares, 1996); (Schunk, 1991). One's sense of self-efficacy can play a critical role in how one accomplishes tasks and face challenges. Bandura (1997) disclosed that these beliefs develop as an individual actively carry out tasks, observes others carrying out such tasks, obtains feedback, and internalizes the feelings. Barber et al. (2015) found that improving self-efficacy benefits learning and that self-efficacy can be significantly changed by students' educational experiences. Additionally, in terms of foreign language study, Piniel & Csizér (2013) stressed that improving self-efficacy can increase the amount of effort put in language learning. Moreover, one's sense of self-efficacy affects the extent that learners engage in self-

regulated learning (Moos & Azevedo, 2009). Therefore, as teachers and researchers aim to improve students' language proficiency, they should also attach importance to the students' self-efficacy.

Second, motivation is another major component of affective attributes, with value and interest representing two important elements associated with motivation (Putman et al., 2020). If one task or topic is of interest for a person, the individual tends to value opportunities to engage with relevant information, and subsequently will feel motivated (Putman et al., 2020). Reading motivation plays a crucial role in college students' academic success (Kambara et al., 2021). Lucas et al. (2010) conducted a study on intrinsic motivation factors and found that language learners are intrinsically motivated to learn reading and speaking skills, and that they are intrinsically motivated through knowledge acquisition and achievements. Students are motivated to learn it due to the interest and value they find on these linguistic skills.

Third, anxiety is the most frequent and negative emotion students experience. It is induced when there is uncertainty about the outcome of an important task and the attention is on anticipated failure (Zaccoletti et al., 2020). A study by Zylka et al. (2015) found negative relations of anxiety and ICT engagement. Another study also showed that anxiety causes the interruption of cognitive processing (Eysenck & Derakshan, 2009). Lu & Liu (2015) conducted a study to examine the relationship between Chinese university students' English reading anxiety, the use of reading strategies and reading comprehension performance, and found that more than half of students generally did not feel anxious when reading English. Moreover, the study concluded that reading anxiety was significantly and negatively related to the use of reading strategies, and both were significantly correlated with the students' English reading comprehension performance.

However, most of these studies on affective attributes were conducted in traditional printed reading settings, when it comes to online context, much more deserves to be explored. Considering the significant effects of these affective attributes on reading process, it is of utmost importance to be aware of our students' emotional state towards online reading, and ensure they have positive feelings and attitudes toward online reading. As such, the objectives of this study can be formulated as:

1. Develop a questionnaire on affective attributes towards online reading for academic or study-related purposes.

2. Examine the specific affective attributes tertiary ESL learners display towards online reading.

METHOD

Design

This study employed a survey procedure since this research was to examine the specific affective attributes tertiary ESL learners display towards online reading for academic or study-related purposes. Meanwhile, this study applied quantitative approach with descriptive statistics to examine students' affective attributes toward online reading (Creswell, 2014).

Participant

The participants of this study were 130 first-year and second-year bachelor's degree students from *Universiti Malaysia Pahang*. The participants comprise both male and female students studying various academic disciplines, such as mechanical and automotive engineering, manufacturing and mechatronic engineering, electrical and electronic engineering, chemical and process engineering, civil engineering, computing, industrial sciences, etc. With the age range of 18 to 22, the vast majority of participants were from three main ethnic groups of Malay, Chinese and Indians.

Instrument

The questionnaire "Survey of Online Reading Affective Attributes" (SORAA) used in this study was adapted by the researcher based on previous questionnaire study "Survey of Online Reading Attitudes and Behavior" (Putman et al., 2020). To better fit the present study, the factors about cognitive strategies were deleted, and factors associated with affective/dispositional attributes were kept. The items originally designed for senior primary school students were adapted to suit the tertiary level, such as the item "I feel confident that I can open a web address directly by typing in the address" was adapted to "I felt confident that I can use online tools and functions to facilitate my reading/searching when using search engine". This questionnaire aims to explore the attitudes and feelings when reading online for academic or study-related purposes. SORAA has 23 items and includes three categories, self-efficacy, motivation, and anxiety. This questionnaire is a four-point Likert type scale, it requires participants to indicate a response to each of the items.

Regarding the validity of SORAA, two senior lecturers were consulted to assess the validity. One lecturer argued that the items in the questionnaire should fit the tertiary level and suggested adding the item 'I felt confident my proficiency in online reading was adequate' to better assess students' self-efficacy toward online reading. The point was adopted and this item was added. Another lecturer argued that the questionnaire should make students able to identify whether they really have such feelings and attitudes and suggested that an online academic reading assignment should be given before the questionnaire survey, and past tense should be used among the items instead of present tense. After consultation and discussion, the suggestions were adopted.

Furthermore, the reliability index was calculated using Cronbach's alpha. The reliability index of the SORAA was found to be 0.881.

Data Collecting Technique

In this study, the questionnaire was distributed online through Google Form, and the participants were required to choose one of the available options. The questionnaire survey was conducted in the first semester of the academic year 2020-2021 at Universiti Malaysia Pahang. The researcher explained to the students before the survey administration that this questionnaire survey was important and they had to answer honestly, then students were asked to finish the survey in 30 minutes.

Data Analysis Technique

The data from the questionnaire were analyzed by Statistical Package for Social Sciences (SPSS). After checking that the data meet the assumptions required for Principal Components Analysis (PCA), PCA was run to assess the construct validity and confirm the underlying factors of SORAA. Descriptive statistics including mean, standard deviation, items with highest and lowest scores, and cumulative percent were employed to explore students' feelings and attitudes toward online reading.

Furthermore, when analyzing the questionnaires' results, items on the subscale of anxiety were reverse-coded in order to indicate more positive dispositional attributes (less

anxiety) compared to less positive dispositions (higher anxiety). For these items, the result ‘strongly agree’ was given the score of 1 instead of 4, the result ‘agree’ given 2 instead of 3, and so on. Hence, the total score of SORAA indicated the participants’ overall affective attributes, with higher scores representing more positive dispositional attributes. This article is processed with help of referencing tool Mendeley following the model of offline automatic system by using Mendeley Desktop (Turmudi, 2020).

RESULT AND DISCUSSION

Results

A principal components analysis confirmed three components existed within this instrument. As presented in Table 1, after checking the items within each component, the results revealed that SORAA had three factors: self-efficacy, motivation, and anxiety. The loadings in Table 1 showed that most of the items within a factor were significantly correlated with that factor, with coefficients ranging from 0.458 to 0.858.

Table 1. Rotated Component Matrix-Principal Components Analysis

Items	Component 1	Component 2	Component 3
1. I felt confident that I can read online texts smoothly and efficiently.	0.750		
2. I felt confident that I can use online tools and functions to facilitate my reading/searching when using search engine.	0.662		
3. I felt confident I can locate target information when reading online texts.	0.725		
4. I felt confident evaluating the credibility and quality of new online information I searched.	0.761		
5. I felt confident synthesizing useful information from various pages I searched to form my understanding.	0.762		
6. I felt confident trouble shooting problems related to online reading.	0.858		
7. I felt confident my proficiency in online reading was adequate.	0.838		
8. I felt once I start reading/searching information online, I cannot stop because I want to find the answers.		0.458	

Items	Component 1	Component 2	Component 3
9. I felt I would rather read online than read a printed material during free time.		0.567	
10. I think students who are really good at online reading/searching have more chance to succeed.		0.510	
11. I felt everyone should know how to use the computers, Internet, online reading platforms etc.		0.688	
12. I felt being able to read online for learning and searching is important to me.		0.822	
13. I believe online reading has made learning more interesting.		0.637	
14. I felt online reading for learning and research is beneficial because it saves people time.		0.537	
15. I believe online reading/searching makes it easier to get useful information.		0.676	
16. I think when reading online for academic purposes, I can find useful information much faster than I can when I use a book.		0.697	
17. Online reading for academic purposes made me feel nervous.			0.644
18. I felt helpless when tasked with online reading/research.			0.491
19. I felt it is easy to get lost when I am reading online for learning and searching.			0.598
20. I worried that I cannot read online texts as well as others can.			0.740
21. I felt like avoiding online reading for academic purposes.			0.650
22. I felt anxious about using online tools and functions related to online reading for academic purposes.			0.586
23. I felt anxious about using the Internet and search engines for academic purposes.			0.707

Meanwhile, Table 2 revealed that the participants scored 2.88 on the overall affective attributes, and 2.84, 3.23, 2.59 respectively on self-efficacy, motivation, and anxiety, indicating most of the students generally had relatively positive dispositional attributes toward online reading.

Table 2. Means and standard deviations of SORAA

	overall affective attributes	self-efficacy	motivation	anxiety
M	2.88	2.84	3.23	2.59

	overall affective attributes	self-efficacy	motivation	anxiety
SD	0.38	0.41	0.42	0.65

Table 3 showed the affective items with highest mean scores, these three items represent the most positive affective responses. The three specific affective items are all from the category of motivation.

Table 3. The items within ORAAS with highest scores

Rank	Item	Mean	SD	Category
1	I felt everyone should know how to use the computers, Internet, online reading platforms etc.	3.57	0.52	Motivation
2	I think when reading online for academic purposes, I can find useful information much faster than I can when I use a book.	3.43	0.55	Motivation
3	I felt being able to read online for learning and searching is important to me.	3.42	0.51	Motivation

Table 4 showed the affective items with lowest mean scores, these three items represent the least positive affective responses. The three specific affective items are all from the category of anxiety.

Table 4. The items within ORAAS with lowest scores

Rank	Item	Mean	SD	Category
1	Online reading for academic purposes made me feel nervous.	2.24	0.82	Anxiety
2	I worried that I cannot read online texts as well as others can.	2.32	0.92	Anxiety
3	I felt it is easy to get lost when I am reading online for learning and searching.	2.56	0.74	Anxiety

Table 5 showed the cumulative percent of three affective factors with mean below mid-point 2.5, the threshold between positive and negative affective responses. Even though the descriptive statistics described above revealed that generally the majority of students felt relatively self-efficacious, motivated, and less anxious toward online reading, but the results

below demonstrated that 36.4 percent of students still felt relatively anxious toward online reading, and 17.3 percent of them felt less self-efficacious toward online reading.

Table 5. Cumulative percent with means below 2.5

	self- efficacy	motivation	anxiety
Cumulative percent	17.3	3.6	36.4

Discussion

Descriptive statistics about affective attributes revealed that generally the students had relatively positive dispositional attributes toward online reading, consistent with the findings in a number of previous studies, e.g., Shang (2016) observed that the majority of students displayed positive attitudes towards online reading. The results were also similar to findings from studies in the traditional printed text reading context, e.g., Lu & Liu (2015) found that more than half of the EFL students did not feel anxious when reading English.

Regarding the three affective factors, motivation was the highest with a mean score of 3.22. Moreover, as shown in Table 5, only 3.6 percent of students felt less-motivated toward online reading, demonstrating that most ESL students at the tertiary level were highly motivated toward online reading. Additionally, concerning the items with highest scores, all of top three were from the category of motivation, and contents of these items represent the value and interest displayed by students toward online reading. According to Putman et al. (2020), value and interest represent the two most important components of motivation, indicating that tertiary ESL learners attach great significance to online reading and generally have interest in it, as shown by the relatively high mean score of motivation in this study.

It's also worth to note that anxiety was the lowest among the three affective factors with a mean score of 2.61. Furthermore, the data of cumulative percent revealed that in general, 36.4 percent of students still felt relatively anxious toward online reading, as previous studies have already shown the detrimental effect of anxiety on reading comprehension (Lu & Liu, 2015), teachers are suggested to teach these students strategies to self-regulate anxiety toward online reading (Zaccoletti et al., 2020).

Furthermore, the items with lowest scores were all from the category of anxiety, one of them is 'I felt it is easy to get lost when I am reading online for learning and searching.' This may be due to the nonlinear nature of online texts, which may cause distraction to online

readers. Online readers rarely have just one text in front of them, they tend to click on multiple links, and may be distracted by useless links, ads, etc. (Brun-Mercer, 2019). Hence, these new characteristics of online reading bring new challenges, possibly influencing students' affective attributes toward online reading.

In addition, as shown in Table 5, 17.3 percent of students felt less self-efficacious toward online reading, which deserves more attention from educators, as a number of studies found the significant effects of self-efficacy on reading, e.g., Ghonsooly (2010) found that compared with low self-efficacious participants, high self-efficacious participants got higher scores in reading comprehension course, Senkbeil & Ihme (2017) found self-efficacy positively associated with self-regulation, self-regulation, as an important part of strategy use, helps readers to achieve reading goals. Considering the significant effects of self-efficacy, instructors are urged to help those students with low self-efficacy toward online reading.

CONCLUSION AND IMPLICATION

The present study confirmed the underlying factors of SORAA: self-efficacy, motivation, and anxiety. The questionnaire results illustrated that most of tertiary ESL students had relatively positive dispositional attributes toward online reading, in other words, most of them felt relatively self-efficacious, motivated, and less anxious toward online reading. However, it also revealed that nearly one-third of students were relatively anxious towards online reading and nearly one-fifth of them were less self-efficacious, as studies have shown that affective attributes play significant role in reading, thus teachers are suggested to pay more attention to those students with less positive affective attributes and take into consideration of affective attributes in language lessons.

Moreover, based on Putman et al. (2020)'s framework, only three affective factors were selected in this study as affective attributes toward online reading, there may be other affective factors having effects on online reading as well, thus future studies are recommended to examine other affective attributes.

Additionally, this study only examined the profiles of affective attributes toward online reading displayed by students, it is recommended for new studies to examine the effects of affective attributes on students' online reading comprehension performance.

BIO-PROFILE:

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