The Students' Preference on Using Screen Text toward their Reading Comprehension

Trisilia Devana

Universitas Baturaja, Baturaja, Indonesia

Correspondence
dtrisilia@yahoo.co.id

Abstract

The objectives of this study was conducted to know the students' preference on using screen text toward thier reading comprehension. In this case, finding out the information that can be used in teaching learning process toward improving the students' reading comprehension is the focus of the educators. Moreover, the students' familiarity reading the text by their mobile technology was as the source of information. The population of this study was students at English Education Study Program of Baturaja Univesity in academic year 2018/2019 and 36 students as sample. The research method was survey design, which to investigate the students' response on the use of screen text relate to their reading comprehension. Questionaire was used in collecting the data, which was classified into four aspects: reading comprehension skills, retention and recall memory, motivation and psychology aspect. The data was analyzed the dominant percentage of each item. Based on the result, students were found to have higher positive preference of the reading by using screen text on the aspect of motivation. It could be concluded that reading a text on screen can give motivation for their reading skill and comprehension.
Keywords : preference; screen text; reading comprehension

INTRODUCTION

Many researchers from different countries affirm that the weakness of language competency has a strong connection with reading problems (Eskey, 2002, Minh & Phan, 2015). Relatively,

reading comprehension problems can be affected by a number of factors namely learners' experiences or previous knowledge (Xu, 2006, Sajeerat, 2011), lack of linguistic competency (Mikulecky, 2008, Sajeerat, 2011), lack of motivation (McGeown et al., 2015, Law, 2011, Sajeerat, 2011), lack of reading strategies (Sajeerat, 2011, Shokrpour & Fotovatian, 2009), and so on. Moreover, the investigation of students' problem and difficulty in their reading comprehension connect also the term of the media, reading text, cognitive factors (Tarchi, 2017, Dunlosky, et. al,. 2013), and psychological factors (Habibian, et. al,. 2015). To solve this problem, many studies were applied in order to improve the reading comprehension skill with serve the appropriate strategy and advantage learning media.

While, in processing to be a good reader, reader must be able to recognize words in order to understand individual sentences as well as to combine their meanings in order to provide an interpretation of the text as a whole. The process of comprehension begins when the reader encounters some new content, this way the working memory is activated in order to capture the information already stored in long-term memory. It requires word identification, attention to understand and interpret written language, auditory memory, visual memory, structural analysis and context of language, logic synthesis, vocabulary, comprehension and rate or fluency in reading. Consistent in maintaining the information that is reading requires good reading rate. It really requires to focus attention or concentrate fully on the reading in order to understand the content and context of the discourse as a whole.

In recent years, technology has had a significant impact on literacy and the dissemination of information, with ongoing advancements concomitantly altering the field of literacy. The use

of technology to support both teaching and learning has stated by some experts and researchers (Kevin, 2014, Gunuc & Nuru, 2017, Patru, 2002). By using technology, students can increase their engagement and motivation, and also make the lesson become more productive, fun and learning becomes more effective. Recently, the people dependency on technology tend in high frequency. Most of the activities use it, not only students but also include the teachers, staff or officer in school. The number of devices available for displaying digital text has increased exponentially, device on display a plenty text or device to evaluate the reading skill. They can be downloaded freely and easy to access even in mobile phone, like text-to-speech (TTS) and Kindle e-reading device.

Text of reading is as one of the vital term. Digital media become popular that serve plenty of kind reading text, experiences and also change a new habit for the reader. In this era, technology like computer, mobile phone, tablet, or LCD that can be used as teaching tool and develop students' reading skill. Most of students familiar reading a text on screen in their daily life. They become easier to read from computer screens or mobile phone. In order that, many researchers also conduct a research about screen text (Rossa, et. al.,2017, Kazanci, 2015, Mangen, et al., 2013, Hamer & McGrath, 2011). In other hand, although this increased interest is promising, several areas of digital literacy are in need of study, such as literacy implementation practices in traditional literacy instruction, that can be leveraged to help guide researchers and educators in applying digital practices in the classroom.

Some experimental studies showed that reading from paper material is better for proofreading or visual search tasks and also indicated that reading from screen may lead to greater fatigue and slower reading times (Chen, et al., 2014, Dundar & Akcayir, 2012,

Kim & Kim, 2013). Comprehension was worse and reading was slower in the screen condition. The most common finding is that reading from screen is slower than reading print. Dyson and Haselgrove (2001) also found a trade-of between reading rate and comprehension when readers were trained to read from screen at a faster speed. Walczyk et. al., (1999) have found that mild time pressure, encouraging people to read slightly faster than normal from screen, can improve comprehension. Muter and Maurutto (1991) extended the application to reading from screens, discussing the importance of investigating skimming from screens because of the widespread use of email, on-line abstracts, information retrieval, and others. As there are differences between reading from screen and print in terms of the process and outcomes of reading, it is important to extend the study of legibility on screen. There are few studies examining typographic variables on relatively recent display technology. Accoding to the explanation above, the objective of this study was to investigate the students' preference on using screen text toward thier reading comprehension. The below explanation discuss the concept of reading comprehension, the students' difficulties in reading comprehension and the concept of screen text.

The concept of Reading Comprehension

To comprehend a text as a whole, the reader needs to process and connect individual idea units, resulting (if all goes well) in the construction of a coherent mental representation of the text. For these processes to be successful, many factors play a role, including reader characteristics, text properties, and the demands of the reading task (Lorch & van den Broek, 1997; van den Broek & Kremer, 1999). The complexity of reading comprehension is captured in theoretical models that describe the

cognitive and linguistic processes involved. Some models focus on the mental representation that readers construct as a result of the process of understanding words, sentences, and their respective relations within a text (McNamara & Magliano, 2009). Although the various theoretical models emphasize different aspects of reading comprehension, they share the central notion that, at its core, reading comprehension involves the construction of a coherent mental representation of the text in the readers' memory.

Readers with weaknesses predominately in higher level processes such as inference making, executive function skills, and attention–allocation abilities have difficulty identifying semantic connections between text units, identifying connections between the text and their prior knowledge, identifying the important or main ideas in a text, and monitoring their comprehension (Helder, et. al,. 2013). When a student is repeatedly unsuccessful in comprehending texts that they have read, this suggests reading difficulties at the processing level. These difficulties can manifest themselves in various ways: failure to recall the main points of a story, failure to answer literal and/or inferential questions, failure to complete the actual reading of the text, and so on. These failures may be due to deficits in lower level reading processes that involve translating the written code into meaningful language units (e.g., phonological processes, decoding processes, etc.), to higher level reading processes that involve combining these units into a meaningful and coherent mental representation (e.g. inferential processes, executive function processes, attention–allocation abilities), or both (McMaster et al., 2012; Rapp et al., 2007).

Some researchers state that the factors that influence the reading comprehensions are the difficulties of materials, the

readers' responses, background knowledge and experience in selecting reading books, the natures of readers and environments (Noicharoen,2012), the learners' susceptible comprehending of the text structure, conclusion drawing, and comprehension checking (Perfetti, et al,. 2004), memory and recall (Morineau et al., 2005; Kerr and Symons, 2006; Porion et al., 2016). Furthermore Motivation is considered a multidimensional core predictor of reading comprehension, moderating the impact of cognitive processes on reading comprehension performances. Specifically, reading motivation is defined as a pattern of goals, values and beliefs that constitute the reader's approach to the processes and outcomes of reading (Guthrie et al., 2012).

The Concept of Screen Text

According Ileri (2012) cited in Akkaya (2015) screen text is the act of reading electronic or digital through a screen like computer monitor and mobile phone. In other antonym define screen text by contrast with printed text or paper page. Reading on screen is easy on the eyes, conducive to deep reading and may be a way to offer access to electronic material without the distracting pop ups, advertisements and alerts of tablets.

Previous studies compare students' preference reading a text on screen or printed. The result found that there was difference and there was no significant differences which varied by several variable, such as gender, age, psychology and motivation. One empirical studies have found reading comprehension to be superior on paper (Kim and Kim, 2013; Mangen et al., 2013), whereas others show no differences between paper and screen (Margolin et al., 2013, Porion et al., 2016).

The other research, Eden and Eshet-Alkalai (2013) examined the reading ability of 93 students in post secondary education, comparing students' active reading abilities between digital and printed formats. No significant differences were found in readers' average scores on the two formats. However, participants who read the digital format finished their assignments faster and with performance levels that were no worse than those who read the printed format. Taylor (2011), on the other hand, showed that digital and printed text were equally effective for students' learning outcomes, arguing that the complexity of the material, interaction with the different formats, and extended memory retention did not make a difference on reading comprehension scores. Kretzschmar et. al., (2013) did a study that compared reading effort on three different media: a paper page, an e-reader (e-ink) and a tablet computer. They studied eye movement, brain activity and reading speed. The participants also answered a few questions to determine reading comprehension. The interesting thing was that all participants said that they preferred reading on paper, even though the study found no support for it being more effortful to read on digital media. On the contrary, the older participants read both faster and with less effort on the tablet computer, due to the back lighting giving a better contrast, and because of this being better for older eyes. The results of this study show that the problem with screen reading is more psychological than technological. Similarly, Tseng (2008) studied the difficulties with reading text on the web. According to his findings, students' complaints about reading from the screen are described in five types; 1. eye-strain and eyes-blurred, 2. bright background color, 3. easy to skip lines, 4. small font size and 5. other reasons like paper habits, radiation from the screen and others. Specifically, Mercieca (2004) studied

the reasons that make people to print, and came out with three main factors: easiness of the paper, highlighting the text, and carrying the paper easily

METHOD

The research method is survey design, which to know the dominant factor that found this study. The population is students at English Education Study Program in academic year 2018/2019, with the sample were 36 students. In this research, the writers used only one instrument, questionnaire. A questionnaire is the amount of written questions, which are used to obtain information from the respondents' which deals with reports about themselves, and things that they know (Arikunto, 2010, p.188).

The questionnaire was used by the writers in order to collect the data related to the students' preference. The questionnaire was administered to the respondents in the sample. Before the respondents response the questionnaire, they were asked to answer two kind short English texts with five questions both using printed reading texts and text on screen. The questionnaire consists of 20 items about readers' reading preference to read using screen text. It contain four aspects of indicator, they are (1) reading comprehension skills, (2) retention and recall memory, (3) motivation and (4) psychology aspect.

RESULTS AND DISCUSSION

The data of questionnaire are presented in table which is given below. As mention above, the sample of this study were 36 students. In addition, the questionnaire items were 20 items with five scales options they are strongly agree (SA), Agree (A), Undecided (UN), Disagree (D), and Strongly Disagree (SD) which the score 1-5. Finally, the individual score were 20 (minimum) and

100 (maximum) with total frequency were 720 frequency (36 x 20) or 100%.

Table 1. table frequency and percentage of students' preference questionnaire

No	Aspects	SA		A		UN		D		SD	
		f	%	f	%	f	%	f	%	f	%
1	Reading comprehension skills	44	17.46	78	30.95	84	33.33	37	14.68	9	3.57
2	Retention and recall memory	9	8.3	42	**38.89**	24	22.22	23	21.30	10	9.26
3	Motivation	49	**45.37**	41	37.96	18	16.67	-	-	-	-
4	Psychology aspects	28	11.11	89	35.32	78	30.95	47	18.65	10	3.97
	Total	130		250		204		107		29	

Table 1 presents a statistical analysis that measures four aspects of the use of screen text in students' reading speed. The first aspect of the percentage that responded to Strongly Agree (SA) was 17.46%, Agree (A) was 30.95%, Undecided (UN) was 33.33%, Disagree (D) was 14.68%, and Strongly Disagree (SD) was 3.57%. The second aspect percentage that responded to Strongly Agree (SA) was 8.3%, Agree (A) was 38.89%, Undecided (UN) was 22.22%, Disagree (D) was 21.30%, and Strongly Disagree (SD) was 9.26% The third aspect was percentage who responded Strongly Agree (SA) 45.37%, Agree (A) 37.96%, Undecided (UN) 16.67%, and the fourth aspect percentage who responded Strongly Agree (SA) 11.11%,

Agree (A) 35.32%, Undecided (UN) 30.95.46%, Disagree (D) 18.65%, and Strongly Disagree (SD) 3.97%.

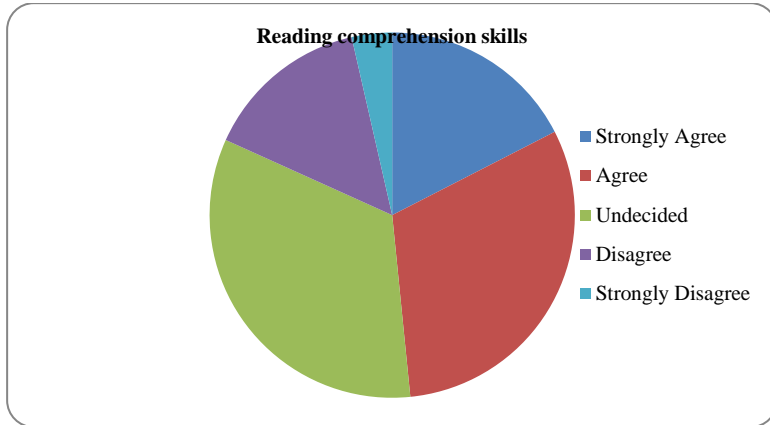**Figure 1**   Aspect of Reading comprehension skills

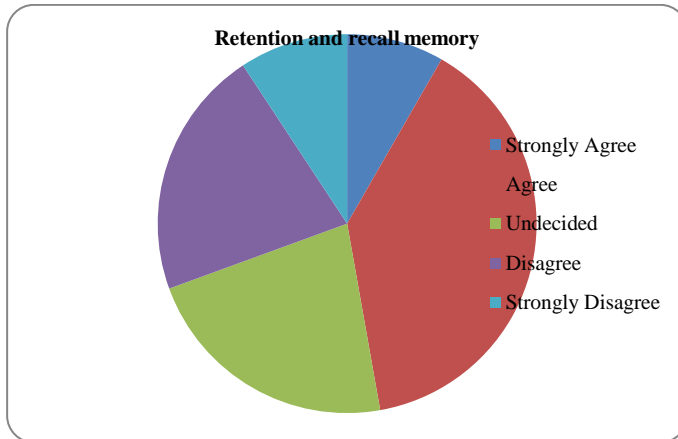**Figure 2**   Aspect of Retention and recall memory
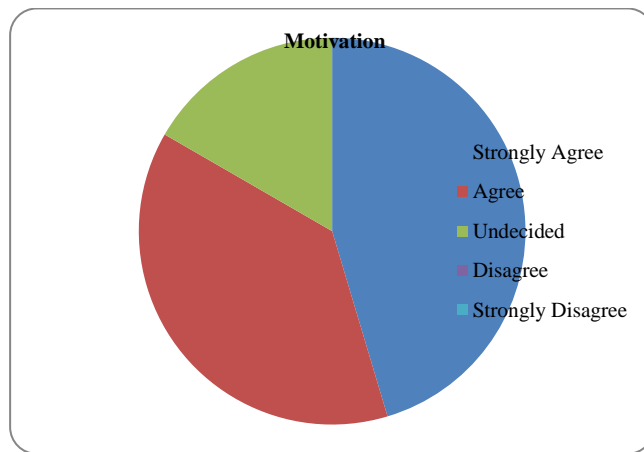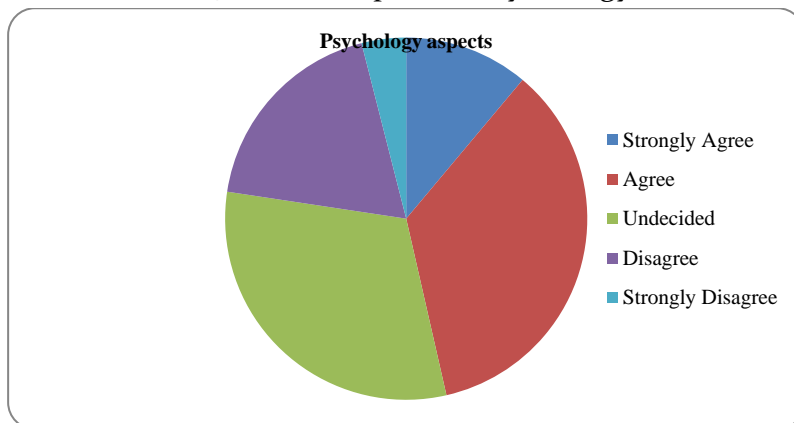

Figure 3   Aspect of Motivation

Motivation

Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

Figure 4   Aspect of Psychology

Psychology aspects

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

From the descriptive data presentation above, it can be determined that the students' perception of using screen text to improve student reading activities in the English Language Study Program at Baturaja University with Agree criteria (Agree), namely the highest total frequency of 250 responses. And the highest aspect related to the use of screen text in reading is the third aspect, motivation (motivation, with the

highest percentage of 45.37% in the Strongly Agree criteria, then followed by the second aspect, retention and recall memory) with the highest percentage is 38.89% in the Agree criteria.

CONCLUSION

There are many components, factors and conditions that can come into play in improving the ability in reading comprehension, such as the reader, the material, the purpose and the technology. Not only the reader's proficiency, background and expectations must be kept in mind, but also the type of material that is being referred to and the kind of screen that is being used.The results of this study indicate several things. First, teaching reading by using screen text can increase students' reading comprehension. Second, the factors that influence changes in the level of reading and understanding of students are providing various readings of text or material, using appropriate reading levels, practicing reading strategies. Third, the phenomenon of technological progress and mobility of students who are already very familiar with reading activities through a screen or a computer like in today's era, can be used by educators as motivation for students in class reading activities. In line with the opinion expressed by Brown (2001) and Parrot (2003) that the advancement of technology and increasing the popularity of digital library materials will have an impact and force today's students to change their views about reading books or printed reading. As stated in the results of the questionnaire above, that students are motivated by the use of screen text in reading. This study also supports the results of previous studies which state that reading through a computer screen or device

is more desirable by students than print reading, although the difference is not too significant (Baron, 2016). The use of reading through screen text must consider these factors. Therefore, it is recommended that the use of this reading activity be continued.

REFERENCES

Akkaya. N. (2015). Teachers candidates' views on e-books and screen reading *international journal of language education and teaching,* 3 / 2, p. 246-260.

Dundar, H. & Akcayir, M. (2012). Tablet vs. paper: the effect on learners' reading performance. *int. electron. j. elem. educ.* 4 441–450.

Durant, D. M., & Horava, T. (2015). The future of reading and academic libraries. Portal: Libraries and the Academy, 15, 5–27. Retrieved from https://muse-jhu.edu.ezproxy.lib.rmit.edu.au/journals/

Eden, S., & Eshet-Alkalai, Y. (2013). The effect of format on performance: Editing text in print versus digital formats. *British Journal of Educational Technology*, 44(5), 846-856. http://dx.doi.org/10.1111/j.1467-8535.

Law, Y. K. (2011). The effects of cooperative learning on enhancing Hong Kong fifth graders' achievement goals, autonomous motivation and reading proficiency. Journal of Research in Reading, 34(4), 402-425.

Gunuc, S., & Nuru. (2017). Technology integrating english language teaching and learning. The *journal of teaching english for spesific and academic purpose*. 5 (2), 349-358.

Kazanci, Z. (2015). University students' preferences of reading from a printed paper or a digital screen: a longitudinal study. *International journal of culture and history, 1 (1).*

Kim, H., & Kim, J. (2013). Reading from an lcd monitor versus paper: teenagers' reading performance. *Int. j. res. stud. educ. technol.* 2 1–10.

Kretzschmar, F., Pleimling, D., Hosemann, J., Füssel, S., Bornkessel-schlesewsky, I., & Schlesewsky, M. (2013). Subjective impressions do not mirror online reading effort: concurrent eeg-eyetracking evidence from the reading of books and digital media *Plos one*, 8(2),

Mangen, A., Walgermo, B., & Brønnick, K. (2013). Reading linear texts on paper versus computer screen: effects on reading comprehension. *International journal of educational research, 58*, pp. 61-68.

Mcnamarra. (2007). *The importance of teaching reading.* New Jersey: Spring.

McGeown, S. P., Duncan, L. G., Griffiths, Y. M., & Stothard, S. E. (2015). Exploring the relationship between adolescent's reading skills, reading motivation and reading habits. *Reading and Writing*, 28(4), 545-569

Mercieca, P. (2004). E-book acceptance: what will make users read on screen?. *VALA* Victorian Association for Library Automation, pp. 1-11, 2004.

Mikulecky, B. S. (2008). Teaching reading in a second language. Recuperado de http://longmanhomeusa. com.

Muter, P. & Maurutto, P. (1991). Reading and skimming from computer screens and books: the paperless office revisited. *Behaviour and Information Technology,* 10(4):257-266.

Noicharoen, C. (2012). *An Investigtion of 11 the grade Thai student s' decoding strategeis at the word level in Englis reading.* Srinakharinwirot university.

Patru, M. (2002). *Information and communication technology in education.* France : UNESCO.

Rossa, B., Pechenkinab, E., Aeschlimanb, C., & Chasec, A., (2017). Print versus digital texts: understanding the experimental research and challenging the dichotomies. *Research in learning technology, 25.*

Sajeerat.W. (2011). A survey study of English reading comprehension problems in academic texts as perceived by Mathayom 5 students in the English program at Thai Christian church. *Thamasat University,* Bangkok.

Seok, S., & Dacosta, B. (2016). Perception and preference of digital and printed text and their role in predicting digital literacy. *Asian Social Scince,* 12(5).

Taylor, A. K. (2011). Students learn equally well from digital as from paperbound texts. *Teaching of Psychology,* 38(4), 278-281. http://dx.doi.org/10.1177/0098628311421330

Tseng, M. C. (2008). The Difficulties That EFL Learners have with Reading Text on the Web. TESL Journal, 14 (2) [Online]. Available: http://iteslj.org/Articles/Tseng-TextOnTheWeb.html

Walczyk, J., Kelly, K., Meche, S., & Braud, H. (1999). Time limitations enhance reading comprehension. *Contemporary educational psychology*, *24*, 156–165.