Digital Reading Strategies of Undergraduate English Language Learners

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Abstract. To interact with digital reading text, language learners need to use certain reading strategies. This paper explores the reading strategies used by undergraduate language learners in a public university in Jambi to read digital academic texts. The data were taken through informal interview in WhatsApp group, questionnaire through a Google Form, and a focus group discussion through a Zoom meeting. The qualitative analysis on the data shows that the students apply certain critical reading strategies in dealing with the digital academic texts. The strategies that the students find extremely useful are rereading the text, note taking and annotating, looking up keywords, making a personal connection, connecting two or more ideas from the text, and comparing different ideas from the text. However, in applying the strategies students faced distractions such as notification and hyperlink. To face the challenge, the students are suggested to focus on their reading purpose.

Keywords: Digital academic reading · English language learners · Reading strategies

1 Introduction

Reading is a daily activity of most people in the world for getting information, either from printed or from digital materials. During the advancement of information and digital technology, digital reading activities are practiced more than before. Not to mention the effect of Covid-19 pandemic where things are more preferred in online mode than in offline as to reduce the spread of the disease that happen in late 2019 until present. People now are getting more used to online stuffs, and this also happens to reading activity. Online or digital reading then, is an activity that is done more by students or by others who love or need to read. Easy and cheap access also become the reason of the increase of online reading activity.

In university setting, online reading or digital reading are practiced by students in order to collect information or ideas that can be used to produces their academic outcome [1], such as writing essay, conducting research, or making classroom presentation. In fulfilling the tasks, what happen these days is that students access materials they need from online sources, read them, and select which materials suitable for their tasks. Students move from reading printed sources to easily-accessed digital sources [2] [3].

In reading printed text, students can practice 'traditional' behaviour such as highlighting and annotating, in which these traditional methods are becoming one of the issues in digital reading. Within these different medias, students cannot just copy their reading behaviour from traditional reading to digital reading. Apparently, there are studies that showed students use different schema on different reading medium. Students only allocate short time to read e-book and e-journal, which is six minutes on average [4]. This is because they read only 20 percent of the page content. In their article entitled 'How to teach digital reading', Lim & Toh [5] argue for a taxonomy to teach digital reading, beginning with the knowledge of linear and deep reading strategies, developing basic and critical information skill, and building students' awareness of variety of semiotic modes make meaning for effective digital reading. The awareness of semiotic modes in digital reading is an important element to gain reading comprehension since it will enable students to use various semiotic modes such as colour, illustrations, and angles to add meaning in their digital reading experience. It can be concluded then, reading in digital format needs different strategies if compared to printed ones.

To successfully construct meaning from digital texts, students must have appropriate reading strategies. Plethora of information have been given by the internet. Students engage in characteristically different reading practices and strategies when reading web text [6]. The change in medium of reading bring us new ways in reading and writing [7], such as web browsing to get more information and wandering around many websites. Readers open several tabs at once. In fact, students admit that while loading the page content, they would impatiently go to other webpages. Unfortunately, with this clicking habit, it results in more skimming activity where the detailed information contained in the text are not well understood. Liu [8] noticed digital reading behaviour tend to make readers to explore topics more extensively, but they often end up in superficial understanding.

This digital reading activity also bring with it some benefits such as interactivity of texts. Readers and author can 'interact' for example, through audio and visual images available in digital texts. These added features can add the meaning to the text, and these are hardly to be found in printed texts. Another example is hyperlink. With hyperlinks, readers are provided with extended information if they choose to read more about the issues discussed in text. The author provided the links, and it is up to the reader where to end their readings. It might result in different endings due to different hyperlinks accessed.

There are several things that reading printed material seems outperform online or digital reading. The following will outline some issues related to digital reading together with the strategy or steps to overcome the disadvantages. Firstly, it is about readers' concentration. Students are reported to have better concentration when doing reading on printed books or materials if compared to reading digital texts [9]. One plausible reason is related to reading navigation. When reading printed book, students might easily revisit the book content that they have read, and students can easily locate their position in the book (which chapter they are reading). In contrast, when reading online materials, students might get lost especially when they follow the hyperlink on the page they read. In fact, people tend to explore reading extensively in digital reading environment [8]. Hyperlink serve two opposite functions indeed. It can offer wide range

of related topics in one side, but on the other side, it can make readers distracted and result in superficial reading. Students need to set their reading purpose in order to reduce unnecessary clicking on seemingly related hyperlinks. Students also have to figure out appropriate strategies for reading digitally.

Next, reading digitally is also associated with reading on screen. There are two disadvantages resulted from this, namely eye fatigue and lacking reading engagement. There are a lot of research have addressed the issue about eye strain when doing screen reading and fortunately now there is a software called as reader software that make reading on screen becoming more friendly. It is said that it really feels like when we read printed version. In terms of reading engagement, reading printed materials are considered more aesthetically enjoyable since the printed materials gives sense of where you are in the book [10]. We can also feel and smells the paper, a pleased feeling when reading printed materials. In addition, our long tradition of holding a book while reading might be a reason why reading printed materials can contribute to better comprehension. Study from human nervous system explains that there is control mechanism of hand and eye coordination that make us easier to read while holding a book rather than to have it lies on the table [11].

There is also another issue about shallow reading that become the characteristics of digital reading. For this case, students need to develop additional knowledge about several program or application related to digital reading. Chen & Chen [12] have had an experiment on improving digital reading performance by using collaborative reading annotation system. In their research, students were allowed to annotate their reading collaboratively through interactive discussion. By arranging the classroom with carefully planned lesson plan on using collaborative reading annotation system, the researcher successfully gained students ability in reading digital texts. However, the shift from reading printed texts toward digital texts still somehow needs to be paid attention. From a study by Johnston & Salaz [13], students in Australia still prefer texts in printed format than in digital format though at the same time they also admit the cheap cost and convenience of e-texts.

In Indonesian context, online academic reading practice is still underperformed in terms of reading fulfilments [14]. Students are not yet mindful of their reading responsibility since reading has not been regarded as their priority. According to Program for International Student Assessment (PISA), it is reported that Indonesian students are ranked 31 out of 41 countries in relation to reading performance for both online and offline reading comprehension. Then, it is important to be investigated about exploring students' strategies when reading online academic texts so the result of investigation might serve as input to improve students' reading activity.

Concerning the challenge on digital reading issues, exploring the reading strategies used by undergraduate language learners in a public university in Jambi to read academic digital text is the aim of the present study. It is regarded important to be investigated as the information obtained will be useful for both students and lecturers. For students, they can be more aware about their digital reading habit and strategies, so they can make self-evaluation toward themselves. They can evaluate themselves, to check whether what they have gone through so far are helpful or not for their study. For the lecturer, the information are useful in terms of arranging lesson plan that suit to the students'

condition. The lesson plan can be arranged to maximize the reading potentials of the students, while at the same time can reduce or minimize the improper strategies done by students.

2 Method

This study was conducted under qualitative descriptive design. It was intended to collect and to analyse data about the strategies used by students to read academic digital reading. Firstly, purposive sampling technique was used to select the participants [15]. The participants for this study are university EFL students who are in the final year for their study and are in the process of writing their research assignment. They are also those who have access to internet and actively search for online reading sources. There are 8 students who agree voluntarily to be research participants, and then they are asked to fill in research consent to make sure of research ethical consideration. This consent is to assure that no students was obliged to participate and they could decide to withdraw for any reason [16]. Also, in relation to privacy issue, pseudonyms would be used. The pseudonym for the participants were P1, P2, P3, P4, P5, P6, P7, and P8.

To answer the research question, the data are from interview conducted with focus group discussion using zoom meeting. The discussion topics are those from the study of Liu [8], where he outlined five main issues in digital reading, namely digital reading behaviour, print vs digital, preference for reading medium, multi-tasking and learning, and technological advancement and traditional attachment. The discussion record was transcribed for the purpose of coding process.

Qualitative analysis was used to analyse the data. They were analysed following the process of coding in six phases: familiarization with data, generating initial codes, searching for themes among codes, reviewing themes, defining and naming themes, and producing the final report. The patterns found within the data of this research generated the themes. The framework for data coding was theoretically ground in an inductive approach, which permit the identified themes to be strongly linked to the data themselves. Beside constant comparison and contrast, the irregularities of the data were also looked for.

3 Finding and discusion

The aim of this study was to explore the reading strategies used by undergraduate language learners in a public university in Jambi to read digital text. Data gained from students reveal that they apply strategies for their online reading practice. The first strategy is they select the texts that are related to their assignment by doing two main strategies, namely keyword spotting and skimming. Firstly, they type the keyword in scholar databases such as Google Scholar or Taylor and Francis online to look for valid academic sources. This is considered good point to start since students have knowledge where to search appropriate and reliable sources. After some articles or texts appear on the screen, then skimming is done to read the abstract and some parts in introduction or table of content.

When Selecting Articles, I Firstly Read the Abstract, Because Abstract Contains the Article Summary. If I Feel that the Abstract is Suitable, I Will Download the Complete Article. P6

After some articles or texts are selected, students do next steps namely to make annotation and highlight important points from the texts. They do it in several ways namely annotating texts directly from the web, taking notes in separate file, or taking screenshot of important ideas. Students choose and pile the information they need in different folders for easy access later. This also assists students in navigating the texts when they know where to locate information they need.

If I Read Article with Browser, I Highlight, Pin the Text, and Take Note Directly. P3

…If I am worried that I will lose the information that I find from my reading, I'd copy it to Microsoft word and save the information there. P1.

I Do Screenshots (of Important Ideas) … and I Arrange Them into Different Files so I Can Access Them Easily Later. P3

Another interesting strategy related to online reading is that students have chance to read same topics from different sources quite easily, as one participant admitted. For example, when they are interested on certain topic from an academic article or a book and they are still confused with the idea, opening other tabs then looking for blogs that contain explanation of the topic can assist their understanding. So, when doing web-based reading, opening several tabs are common to happen. In analogous situation, it is similar with reading with several books open in a table. To some students, applying this strategy is helpful for their academic reading in the sense that writing contained in blogs are often served with lighter language and give them prior and/or added understanding about the topic.

When I stuck or confused with ideas continue writing my paper, I usually do google search to search more explanation and I visit some blogs that are related to my writing topic. Reading blog is helpful for me since it contains light writing if compared with reading textbook. P6.

Still related to opening several windows while reading, this strategy apparently both helpful and dangerous at the same time. It is helpful because students argue that this strategy allow them to relate and summarize ideas from several texts they are reading. This is called as synthetizing information [17]. However, if they are not careful, they can get distracted by opening unnecessary tabs and losing their reading path. Students waste their time reading unrelated information.

Clicking habit is not the only distraction when doing online reading. Students state that the access to entertainment web is so tempting to do. In order to reduce this possible distractor, they read the text with laptop, not with their smartphone. Their smartphones have several entertainment apps installed such as game and social media, and in order not to get distracted, they read the online text with laptop where they turn off the internet signal (they have the textbook downloaded before). When they have spent enough time to read, they give reward to themselves by doing entertainment reading. It is important, that students manage their reading time both for academic and entertainment reading.

In My Experience, I Do Academic Online Reading with Laptop so There is Less Distraction. If I Want to Do Entertainment Reading, I Do It with My Smartphone. P2

Getting distracted is an issue when doing online reading and I am trying not to get it. I turn off notifications on my cell phone so I can concentrate on my reading. It usually takes one hour and a half for me to obtain information from articles or texts I am reading. Then, when I get tired, I do read for fun, like reading comic. P5.

When reading academic text in online environment, students employ several strategies in order to have in-depth understanding toward the text. Since the participants are students who are writing their undergraduate thesis as the requirement to graduate from their study program, it can be inferred that the first and important reading strategy is to set the purpose of the reading activity. Sengupta [18] defines that academic reading is purposeful and critical reading of academic texts to study specific discipline. Thus, by having the purpose in mind, students do skim and keyword spotting to select related reading materials they need from websites or journal databases. Next, the students need many information and ideas to build up their thesis' topic, and also questions to be confirmed about the topic they are writing [19]. Generating questions will help them to clarify their thinking and to construct new knowledge. Then, students synthetize the ideas from those reading sources [20]. With this strategy, students are able to connect ideas from different sources and write the summary of the relevant sources with their own words.

Then, it is continued by doing annotation and highlighting activities. These strategies are done in order to obtain relevant ideas from the texts, and they do these activities both online (online annotation) and offline mode (writing in separate paper). From the data, students do other activities that are 'similar' to highlight and annotate, namely taking screenshot, pinning the text, and copying the information into word file. With interaction like this, reader can have good connection with the text. Interestingly, if there are some ideas that they do find difficult to comprehend, students read blogs to get more simple explanation. They argue that blogs contain lighter language than textbooks.

Furthermore, it is undeniable that online reading will allow distraction such as notification and clicking temptation. Notification from social media and click on website that contain entertainment content are real issues for students when they do online reading. If compared to the past, it is more or less same with prohibition not to read while watching television [8]. It means, besides setting the purpose before reading, setting up schedule to read is a good idea to do for students. Students need to have time management for this reading activity. As one student says, "… *It usually takes one hour and a half for me to obtain information from articles or texts I am reading. Then, when I get tired, I do read for fun, like reading comic. P5.*

Maintaining reading purpose is also related to affective issue on reading because it has effect on maintaining motivation and retaining information. Keeping up the motivation, managing efficient time, and ability to retain information are eventually grouped into affective reading strategies [1]. This type of reading strategy addresses more on students' ability to handle their attitude. Indeed, reading in online mode bring one benefit, that is practicality. One participant argues that she brings her laptop mostly anywhere so that she can do reading when she finds convenient place. She has downloaded many sources like textbooks and journal articles, and it is similar that she brings 'many books' with her.

…with this technological advancement, I prefer digital reading that printed reading because I can do reading anywhere and anytime, with my smartphone or laptop. We just can search and download articles related to our research topic. P2.

Nevertheless, there is also one student who admitted that she frequently postpones her assignment until it closes to deadline. She thinks that she has the materials already because they have been downloaded, but she doesn't read them straight away. As the result, she only reads and understand bits of information from here and there, not a complete picture. Students have to manage this kind of attitude since it has effect on their reading activity. Thus, students can manage this problem by firstly raising more awareness of their role as learner [21] so that they can fulfil their responsibility becoming a good student. This of course can help them to reach their goals, especially if they combine it with the above reading strategies, namely setting reading purpose, doing the technical strategies (skimming and other strategies), and applying affective reading strategies (maintain motivation and concentration, manage time efficiently).

4 Conclusion

With the abundant availability of online reading sources, students are advantaged of the easy and cheap access to reading materials. Students put some efforts and strategies to maximize their reading experience because apparently reading in online environment are not too similar with reading printed text. It requires different strategy. In this study, the strategy used by undergraduate English language learners when doing online academic reading were explored. They are setting the reading purpose, skimming for general ideas, doing'annotation' with different styles (pin the text, copy the information in word file or write them in papers, and take screenshots of the information), and reading related blogs that can help their understanding. Affective reading strategy are also important to be taken into account, such as having reading-time management and maintaining reading motivation. The current study adds to the body of knowledge about digital reading strategies especially in academic purposes. The result can be used as guide literacy for the students regarding their reading behaviour. They can check their understanding when they use the information or data from the reading texts in their thesis writing.

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