

# Text Selection and Preferences of EFL Students While Reading on Smartphones

Chen May Oh, Pramela Krish, and Afendi Hamat

**Abstract**—Reading on smartphones is now a common activity due to the variety of platforms that cater to all kinds of users. The number of texts and range of difficulty levels in the English language are significant for EFL students because they affect their language acquisition efforts. This qualitative case study investigates the types of texts that EFL students engage with on smartphones and the approaches they use to select specific texts to read. Students submitted screen recordings of their smartphone activities and justified their actions through interviews. Findings were thematically reported. The study revealed the kinds of texts students engaged with and how they were selected and evaluated. Students generally avoided texts perceived as challenging but attempted texts with topics that attracted them. These findings shed more light on text features that students seek and create awareness for content creators to produce digital content that is engaging and relevant for educational purposes.

**Index Terms**—Digital texts, smartphones, text features, reading.

## I. INTRODUCTION

The Internet has become one of the most popular, worldwide sources of knowledge for people to read, write and reflect upon. With the advancement of mobile technologies, an Internet-connected smartphone is now a commonly used tool for reading and information-seeking. It is akin to a lifeline for those who rely on it daily for various reasons such as gathering information, constructing knowledge, and entertaining themselves [1]. This transformation of literacy could be due to democratization, economic developments, the proliferation of information and communication technologies, and cultural changes [2]. However, the myriad text types and varieties of reading materials available through various mobile applications sometimes make the selection of texts somewhat challenging, and readers may find it daunting to select suitable texts to read in order to achieve their reading purposes. Hence, how do EFL students select what to read, and what do they actually read on their smartphones?

Although some may argue that the use of smartphones does not constitute reading, reading skills are needed when one uses smartphones to conduct any activity [3]. This is because one needs to read the titles, headings, instructions, and messages on the screen to perform any activity on the smartphone. Navigation in the digital environment would be more efficient if the user could effectively comprehend what

was read so that they could perform necessary tasks.

Additionally, the online digital environment provides an authentic reading environment that supports and engages readers in meaningful reading and language learning experiences [4]. For EFL students in Malaysia, this online setting is important for improving English language reading skills, as it is currently the most widely used language on the Internet. As the students encounter and read English language texts in the digital environment on their smartphones, this would significantly influence their L2 reading skills and language acquisition process. While some texts may appeal to them more than others, the kinds of texts selected would affect their language skills to a certain extent, due to the variety of linguistic structures used in the array of texts.

Therefore, it is significant to investigate the kinds of texts that EFL students engage with on their smartphones, and the approaches used to select those texts before engaging with them. This paper aims to answer the following research question:

What are the types of text selected by EFL students while reading on smartphones, and what are the approaches used to select those texts?

This study would help researchers and educators recognize how EFL students construct their reading on smartphones and the kinds of texts that they are currently engaged with. The findings would be useful for researchers and educators to structure reading paths that maximize the potential use of smartphones as a reading tool and guide students in developing skills for more meaningful and significant reading of digital texts. This would, in turn, improve EFL students' language skills when their mobile reading experiences are maximized.

## II. REVIEW OF RELATED LITERATURE

### A. Reading on Mobile Screens

Researchers pointed out that the emergence of screen-reading behavior was due to easier accessibility of electronic devices and practicality purposes [5]-[8]. This was also because students were attracted to browse through an array of information on the Internet, skim through various texts, and simultaneously download their favorites on a handy device [9]. Besides, other studies showed that the preference for digital texts was also due to costs, ease of locating resources, and portability [10]. Although a few studies demonstrated that some students did not prefer reading on screens for prolonged hours and even experienced a loss of focus, the younger generation still generally spends more time reading digital texts through electronic devices

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The authors are with the Centre for Research in Language and Linguistics, National University of Malaysia, 43600 Bangi, Malaysia (e-mail: bm-0180@moe-dl.edu.my, pramela@ukm.edu.my, fendi@ukm.edu.my).

compared to printed texts [7], [9], [11].

Hence, the myriad activities conducted on smartphones indicate that people read even more through mobile devices [12]. The physical ability to hold those mobile devices somehow allowed the users to feel more competent and in control of scrolling and navigating the screen while reading [13]. This increase in reading conducted on smartphones instead of print media has shaped new reading behaviors characterized by more browsing and scanning, identifying keywords, non-linear reading and more selective reading [14], [15].

### *B. Comprehending Multimodal Digital Texts*

The kinds of texts present in the digital environment are multimodal, comprising many dimensions such as script, images, as well as audio and video formats [16]. This means that information on smartphones is also communicated not only in traditional text formats involving common multimodalities such as font type and size, but also through a combination of visuals, audio, and videos. This is an important perspective for texts because various studies have pointed out that multimodal texts could create better opportunities for EFL students to further develop their language and comprehension skills [17], [18]. These dimensions can develop and support learning and information in ways that are different from traditional printed texts which are only in two dimensions, consisting of text and visuals. Therefore, having access to texts on smartphones, which are multimodal, can bring benefits, especially for EFL students seeking to improve their reading skills and language proficiency levels.

However, the cognitive processes and strategies required for the comprehension of a single printed text are different from the cognitive processes and strategies needed in comprehending the multiple sources and dimensions of information in a digital environment [19]-[21]. While reading on smartphones, digital readers need to implement different strategies in selecting suitable texts to engage with, because more distractions occur in the online environment [22], [23]. These distractions include advertisements, interesting but irrelevant materials that appear during a search, additional links on the page, and text messages that come in [24]. Hence, it is important to manage these distractions to select texts and read effectively, such as using digital tools like ad-blockers and developing self-regulation skills [23].

Additionally, for effective online research and comprehension, readers need to have the skills to use applications such as the Google search engine [20]. These skills include competencies in seeking information from reliable sources, using suitable keywords, scanning for relevant articles, and structuring their comprehension [16]. Strategies used on printed texts such as establishing meaning, self-monitoring, and evaluating information are still utilized, but they have to be adapted to suit the online environment [16], [25]. Nevertheless, although traditional reading skills are helpful in obtaining information through online reading, they are still insufficient because readers need to make decisions in selecting what and how they will read in a digital environment [19], [21]. Here, digital reading is likened to a problem-based inquiry process, which requires readers to

develop specific skills and strategies to find information online, critically evaluate the reliability of the information as it appears in the search, synthesize the new information with previous knowledge, and finally communicate the online information to others in new ways [20].

Hence, although these multimodal digital texts may pose a challenge, they still attract and engage readers in different comprehension areas as they are “read” in various ways compared to print. For example, when readers engage in texts with images, those images help illustrate the text’s ideas in greater clarity. On the other hand, videos and audio provide moving media, actively attracting readers’ attention and helping with information comprehension and memory retention. Furthermore, these multimodal texts could also help EFL students with verbal proficiency [17]. The multimodal features “offer different access points for comprehension, invite participation, and motivate repeated practice so that samples of natural language are memorised and can become part of the learners’ language repertoire” [17]. It was highlighted that mixed text display type generated the highest cognitive load and reading comprehension, followed by the dynamic type (auto-scrolling) and static type (paging) [26]. Therefore, although multimodal texts may be challenging to read, they create language development opportunities for EFL learners.

### *C. Digital Reading among Malaysian Students*

A study on Malaysian students showed that digital literacy competency depends on factors such as English language proficiency and the design of multimodal forms in digital content, such as the various linguistic, audio or visual elements that help with meaning-making [27]. Although some digital English language reading materials may be difficult due to complex language structures, Malaysian students from urban and rural areas still prefer them over Bahasa Malaysia for online reading activities [28], [29]. This is probably because the English language is the more dominant language on the web, and Bahasa Malaysia materials are more limited. Nevertheless, this was in contrast with Chinese students who preferred online reading materials in Mandarin, especially for leisure purposes, but would still turn to English language materials for academic reading [30].

The EFL students in the present study were involved in selecting texts on smartphones without the guidance of an instructor. Hence, according to the self-regulated reading perspective, this meant that students generated their reading paths and planned their actions during the text selection process [31]. These aspects were then adjusted accordingly to achieve specific reading goals. The self-regulated reading process involves forethought, performance, and self-reflection [31]. For readers to be successful in reading, they need to initially set goals as part of the forethought phase, and this includes having an idea about what to search for when approaching digital texts. Hence, setting goals would help them know and be confident of what to select to read. Following that, during the performance phase, they would observe and monitor their performance or comprehension to see if it relates to their goals and make adjustments if necessary. This process of monitoring and adjusting their reading is termed as metacognitive monitoring and

metacognitive control, where the readers evaluate their reading to see if the texts they have chosen helped them reach their reading goals [32]. If it did not, they take control by adjusting or adapting through repair strategies such as rereading or selecting a different text [33], [34]. This is part of the self-reflection process where the readers modify their reading to reach their reading goals.

#### *D. Selecting Texts*

Readers who are interested in content tend to seek texts which appeal to their interests. When readers are aware of what to look for, they are considered active readers who are more interested in and engaged with the content [35]. This is opposed to merely coasting along in a passive state while searching for content, which may result in blindly trusting the source and reading uncritically [35]. This means that when readers are not selective with the content received but passively accept whatever texts appear on their screens, they may become less attentive, unengaged, and less purposeful. Additionally, the text size and text display type on the small screens of mobile devices could significantly affect readers' comprehension by restricting the transfer of information [26]. Therefore, when it comes to selecting texts on mobile screens, there is a difference between readers who actively search for specific content compared to readers who passively read any content that appears.

Besides, during the text selection process on mobile screens, studies have also indicated that readers prefer to skim and use techniques such as word-spotting, by preferring to only read headlines or samples of paragraphs in an article [14]. Those studies demonstrated that smartphones are more suited for reading short texts, but it would be challenging for readers to sustain concentration for lengthier materials due to more distractions in the mobile environment [14], [36]. However, this means that readers are also more selective with content because of the portability of smartphones that allows reading to be conducted anytime and anywhere in between activities [14].

Based on the framework from the abovementioned literature, this study outlines its findings by first discussing what kinds of texts students read, followed by how they were selected and the decisions made after selection, and finally evaluating the value of the text before deciding if they would move to another one.

### III. MATERIALS AND METHODS

#### *A. Sample of the Study*

This case study employed a qualitative research design, and 12 pre-university participants from various states in West Malaysia volunteered consent for their smartphone screens to be recorded. These 18-year-old students were all EFL speakers with B1-C1 CEFR proficiency levels in the English language based on the Malaysian University English Test (MUET). This meant that they were able to read and understand texts independently.

The sample for the in-depth case study was considered sufficient because as more data were analyzed from each participant, the themes that emerged continued to confirm

each other, and the later samples showed recurring themes without the emergence of new themes. Additionally, the sample size allowed a more profound analysis so that more insights came from focusing on each student in detail [37]. The students had also just completed their pre-university studies and the data collection period occurred during the interval before their university enrolment. This meant that the students were no longer constrained by academic contexts, but were in an unsupervised environment outside of school settings. This allowed the observation of digital reading activities taking place naturally in real-world settings rather than as an artificial task.

#### *B. Data Collection*

The data collection process involved students submitting screen recordings of their reading sessions on their smartphones that showed the activities performed on the screen while they used their smartphones and how they selected texts to read. They were instructed to record their screen activity as an unstructured and independent activity, like how they would usually use their smartphone, and in the most natural setting possible. They were to record at least one session (or more) of at least 3 minutes (or more) and were given two months. The screen recordings were then submitted to the researcher through messaging apps. These videos were then reviewed, analyzed, and observations were recorded. The students were then called for semi-structured, open-ended interviews with questions constructed based on the observations from their screen recordings. During the interview, they were required to clarify further the activities they had conducted on their smartphone screens. The interview questions were adapted accordingly depending on the students' responses. This was to delve further into understanding the kinds of texts that they engaged with and the approaches they used to select particular texts as they scrolled on their phones.

#### *C. Data Analysis*

All data were thematically analyzed using constant comparative analysis [38] and systematic coding procedures [39]. The findings were discussed thematically and supported with descriptions from the screen recordings observed and excerpts from the interviews which were quoted verbatim. These were labelled 'S1' to indicate Student 1, 'S2' to indicate Student 2, and so on.

### IV. FINDINGS AND DISCUSSION

#### *A. Texts Frequently Engaged with*

Observations from the screen recordings and students' responses revealed that students engaged with texts on their smartphones either by actively searching for them or passively receiving them. When passively received, this meant that students had no control over the kinds of content they encountered on their screens. This depended on the type of phone application used on their smartphones as seen in Table I.

A look at the home page of students' smartphone screens showed that most applications installed and frequently

accessed were mainly related to social messaging applications and social networking applications (Fig. 1). Other frequently accessed applications included video-sharing apps and browser applications such as Google Chrome or Safari. In addition, students occasionally visited Google Classroom to attend to assignments set by their teachers.

TABLE I: ACTIVELY SEARCHED VS PASSIVELY RECEIVED TEXT

Actively searched	Passively received
<ul style="list-style-type: none"> <li>Platform used - Browser applications (eg. Google search engine)</li> <li>based on interest</li> <li>aimed towards utility or academic purposes</li> </ul>	<ul style="list-style-type: none"> <li>Platform used - social messaging and networking applications</li> <li>from friends and other users on the platform</li> <li>targeted for pleasure or personal purposes.</li> </ul>

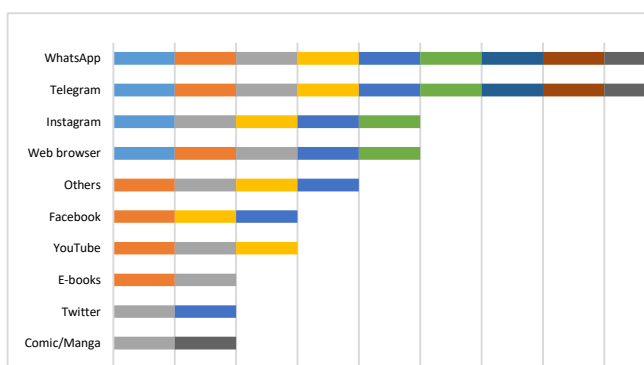


Fig. 1. Typical applications used in students' smartphones.

This coincided with another study [40], which found that people spend the most time reading on social networking apps, followed by academic reading and recreational reading.

However, among these applications, students indicated that they usually had no specific preferences on which applications they visited first during their reading sessions on smartphones. They alternated between text messages and forwarded information or stories from social messaging applications and those from their social networking apps, such as trending news as well as personal thoughts and opinions shared by friends or the general public.

S10: I don't really decide what apps to go first, if I have a notification from a certain app I will open that app first.

S1: I don't have any specific reason in which apps I usually go to first or maybe after seeing something interesting popping out in the notification.

S9: Most of the time I just go (no plan) I go randomly only, because I think if I want to do it, I'll do it lah... yeah. It's not planned at all

Students explained that apart from frequently using text messaging applications for communication purposes, they frequently accessed social networking apps because those apps provided interesting reads that engaged them as they interacted with the text. The variety of content and topics shared by various people attracted them to visit these applications often.

S4: I keep scrolling my IG (*Instagram*) because there are a lot of interesting things in here. Most of them are uniques. And then I have, uh, and new information.

S8: To see how others people daily life like or what are they posting about.

S3: I think it's interesting lah, to watch another, another people, what they do today

S10: To catch up with what's happening in my life or around me.

These comments demonstrate that there is somehow a sense of curiosity, where people like to be informed of events or news about other people. This complements findings [41], [42] which showed that people generally prefer reading texts and news, especially from social media. In fact, there was an increase in people receiving news through social network sites and choosing to read those which are recirculated by friends or members of the public rather than visiting the news portals directly [43]. This is because readers have a more positive sentiment toward news re-shared by ordinary citizens than those directly posted by journalists through other websites [41]. Students in this study also pointed out that visiting social networking apps for updates saves their time from needing to search for trending news on the web.

S9: So for Instagram, I just usually check my message or scroll down a bit... So it makes it easier for me, instead of going to Google.

Besides reading recommended news, they also often preferred to use social networking apps on their smartphones to read updates from their friends and family.

S8: I will decide to use Twitter or Instagram just to know what my friends posted or shared

S7: I will enter Instagram to like, see how my old friends make, what are they doing,

S11: I use Instagram, mostly I used to, um, look at my friends', my friends' daily life, like what they do, what they eat; ah, their daily life lah. Because most of us like, um, like to share our daily life on Instagram's story method.

S11 added that this created a sense of belonging to the world that he was living in, rather than being confined within the walls of his college. This showed that human beings generally possess an intrinsic need to feel connected, included, and linked to other people and the world around them [44].

S11: I feel like, I want to contact with the world..., I'm not left by the world... I never been left out by the society, and I can catch up the news and release stress some more.

Having the ability to access information, not only for knowledge but also for social connection, is crucial for individuals' survival and social development [45]. Hence, comments from the students demonstrated their need to access their smartphones to read updates because this was essential for their social well-being.

Besides receiving texts from social networking and messaging applications, students also read messages and attachments received in their emails and updates and reports sent by other applications. Generally, these kinds of passively received texts were targeted at pleasure or personal purposes. However, a few students indicated that they do have planned, targeted reading sessions for purposeful reading of specific digital reading materials on their smartphones, such as e-books, to make the best out of their digital reading experiences.

S10: I read it once in a while maybe twice a week. I choose stories based on the genre I like for example young adult.

S2: This is Open Language, to let others learn English

more better. It's very entertaining. So every time when I walk back to school, it's a long distance. I will open that. It will like summarize something, then you can read it, one passage per day.

*B. Types of Topics Read*

Based on observations from the screen recordings, Table II reveals examples of topics that were actively searched for and those that were passively received. These search queries and received texts were extracted verbatim as observed from the videos of the students' smartphone screen recordings. It could be seen that texts searched for were most commonly retrieved from Google search engines, whereas texts received came from various applications that gave automated text feeds in real-time.

TABLE II: EXAMPLES OF TOPICS ENCOUNTERED FOR PLEASURE AND UTILITY PURPOSES

Topics	Remark
<i>Actively searched</i>	
"creatinine"	medical term from a blood report that was received in WhatsApp (S1)
"true colours of ethnic rohingya"	inspired by an Instagram story shared about Rohingya (S1)
"sphinx"	(S1)
"sea angel"	(S1)
"wizard of oz movie"	Overheard from a TED talk video (S2)
"courses offered in malaysia"	Searching for relatable courses in the interested field of study (S5)
<i>Passively received</i>	
"Personal care products"	Scheduled audio script from Open Language app (S2)
"It's their first time going outside together today"	Subtitles from video in the Korean language which appeared in YouTube (S3)
"cheese in the trap"	Title of e-comic from WebToon (S3)
"3-ingredient biscoff fudge"	Steps for a recipe from Instagram (S6)
"One time I got a really bad sunburn..."	Part of post from a tweet feed in Twitter (S6)

Table III reveals topics that usually attracted students to read on their smartphones.

TABLE III: POPULAR TOPICS SEARCHED BY STUDENTS

Topic	Description
• General knowledge	- do-it-yourself, etc
• Current news	- national and world updates
• Entertainment news	- movie reviews, artists, etc.
• Stories about daily living	- recipes, health and fitness, beauty,
• Fanfiction and comics	- Japanese manga

These topics were clearly observed through the screen recordings. Somehow, this group of pre-university students did not highlight topics related to the environment, sports, economics, and politics.

Students pointed out that they generally did not purposefully search for specific topics when visiting various smartphone applications, but were instead attracted to read them due to the displayed titles. They noted that most of the time, the articles, which covered various topics, were discovered either through recommendations by friends or while scrolling through their social media feeds. When students passively received these texts, it was observed that they tended to scroll and read through whichever topical posts that appeared on their social networking accounts, further selecting particular posts to read details such as

comments only if they were interested.

S9: I just receive and read whatever post that appears. It depends... it randomly comes.

Some of the posts received were also specially subscribed to by students as "followers" of those particular accounts, which automatically showed posts in their feed.

S5: Like uh, I followed like a pa-, a page there like, which like, give like, general knowledge.

Hence, when students selected accounts to follow and actively engaged in areas of interest, this demonstrated that they were still in control and determined which content to receive in their social media accounts, although they passively received texts.

S11: I will decide it based on my interest on the topic.

S7: If that things is interesting to me, then I will spend my time ... I will only read or watch the thing that I am interested.

*C. Text Selection*

Although students occasionally received texts passively, there were times when they actively searched for texts on their smartphones. These were generally aimed toward utility or academic purposes. The list of digital texts available could be very extensive in the online environment. Hence, to decide which texts to read, students pointed out that they would usually select topics that fulfilled their reading purpose and interest and were easy to read.

S1: I will click the one that looks like it will give more information and I can understand easily

S10: I actually don't find what to look at or what not to look at but if something seems interesting I would read up about it and if it's not interesting I would just scroll over.

S11: I will randomly scroll and read deeper if found my interested topic...I choose stories based on the genre I like for example young adult

These were usually selected through the Google Search Engine Results Page (SERP), which consists of a list of web pages in response to the search query. These search results were usually used to guide or recommend which texts to read. Due to the keywords entered by the students in the search query, the results would usually be based on topics that aroused their interest. From those results that appeared, Table IV lists the criteria students used to select particular texts to read on their smartphones. These were also observed through the screen recordings.

TABLE IV: SELECTION OF TEXTS ON THE SEARCH ENGINE PAGE

Selection	Reasons
• First few titles on the search page	-The best and most relevant ones would be listed first.
• Popular web pages with many visitors (known as hits)	- a featured snippet at the top of the Google Search Engine Results Page (SERP) (web links that usually receive the most number of clicks)
• Familiar websites	-Have visited before
• Eye-catching titles	-Contain specific or attractive descriptions
• Texts with images and videos	-The illustrations made the texts more interesting
• "People Also Ask" (PAA) and "People Also Searched For" (PASF) box	-suggested some websites with topics of interest

Students expressed that better websites were usually listed first.

S5: I go for the first one on the list...I think they put the best website there.

S9: Oh, usually I'll just choose the first one, or I just go to 'News' tab and click that, because the 'News' one is more credible than the main page one...Oh, I choose the most recent one.

The list of web pages sometimes featured visual enhancements such as star ratings, thumbnail images, or videos and a brief preview of the information related to the search query. These helped students to decide on the texts to read.

S1: I will choose pages that show they have a lot of visitor views.

Nevertheless, S5 added that she would sometimes not select the first few links on the search page because their prime placement was due to them being paid promotional websites rather than their popularity or usefulness.

S5: I usually won't click the first one, because like, it will come with the advertisement thing with it, so I'll usually go for the second or third. Um, yeah. And then I, I actually know this website earlier, because I've, I've near, I've visited before

Students highlighted that they would usually scroll through the first few titles on the search page before selecting one which was most relevant to their interest and suitable to their level of comprehension.

S5: There was a title where there was like, top 20 demanding courses. Like, it, it attracted me lah, it was catchy, so, so I clicked that... It depends on how catchy/attractive the article is.

S10: I think they bold their words quite... it's eye-catching

Students added that the dynamic Google feature, "People Also Ask" (PAA) and "People Also Searched For" (PASF) box within the Search Engine Results Page (SERP) sometimes suggested relevant websites to read. These appear as part of the search page, and the PAA box contained a set of 4 questions related to the original search query, while the PASF box contained a list of suggestions of what other users have also searched for regarding the same topic. When a question is clicked, the box will expand to display a text snippet that gives a brief answer to the search query and the URL for the text source. A few additional questions are also added to the PAA box simultaneously. Therefore, the box keeps expanding when clicked as new questions are added to the box. These helped give students suggested key terms to search for, especially if they were unsure how to term their search accurately. For example, as shown in the video data, S5's initial search for "courses offered in Malaysia" was unsatisfactory. Consequently, she selected a suggested query, "demanding courses in Malaysia," through the "People also search for" box.

S5: There's also a section, 'People also searched for...' So I look there for more suggestions and if it is interesting, I will click it.

Fig. 2 displays a screen capture of one of the recordings received, showing the search page and topics suggested by the Google search feature.

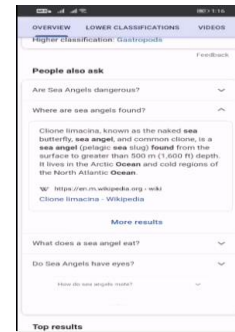


Fig. 2. Screen capture showing PAA box on student's smartphone screen.

As the suggested resources continually appear when selected, this makes the selection of topics endless. Nevertheless, some of these students also noted that they directly visit news portals through the ready tabs on the google search page that highlight current news rather than scroll through the search results.

S9: Cause Google got the 'News' tab there, so I just go there and search it out

S11: I still follow CNN and Star News, and other, other websites lah, like the famous website.

#### D. Length of Selected Texts

The texts read usually ranged from short captions on images to lengthy novels or news articles. However, it is important to note that students showed preferences for shorter texts and admitted that they tended to avoid complex and lengthy texts because they found them hard to comprehend and anticipated that they might be boring.

S4: I will skip...When the, when the caption is too long or too boring

This generally demonstrates the prevalent reading culture in Malaysia, especially among the youth. Lengthy texts tend to be avoided, and they are more attracted to short, sensational ones. Based on the students' responses, this was because they preferred to move from one text to another quickly in search of relevant content. Therefore, they do not usually stay on one text for a long time.

S5: If it's like, boring, like halfway, then I, I won't read anymore lah. And then I'll just scroll and then look for other posts, like that.

However, students highlighted that articles accompanied by images and videos were preferable as the illustrations made the articles more interesting.

S1: They put some graphics, and provide videos for people to understand more

S10: they inserted some pictures as well, from the series, which made it quite interesting...they give you the text, then they show you the picture

They pointed out that they would still make an effort to research and read interesting texts on topics that appealed to them, even though those texts were complex. In those cases, students used assistive reading tools such as online dictionaries, Google translate or searched for online images to help them comprehend when they encountered unfamiliar words.

S1: I will use the Google Translate to help me understand some words.

S2: I will try to look up the words that I don't know through Google or Cambridge dictionary. Sometimes I



search for image too.

### E. Language of the Selected Text

One significant observation from the screen recordings showed that the EFL students' reading activities involved various languages. Three of the students' screen recordings showed that half or more of their social networking feeds were in their L1 (S4, S5 & S6). However, these were only limited to their social networking applications. When the reading activities involved general texts, screen recordings showed that most of these texts selected by all students in this study were mainly in the English language. This was because, as EFL students, they felt that reading in English was important for their language development, and there were a greater variety of reading materials as well.

S11: I have opportunity to learn more English, it makes my English improve... maybe not a big improvement, but it's good for me already.

S3: I mostly read in English, because have more thing. If in Malay, is less and won't help me to improve

S6: Because sometimes, in Malay, *dia macam, cam tak ok sangat. Kalau dalam English, dia punya information tu macam lagi, dan tepat* (it is not very ok. If in English, the information is more and accurate)

Students pointed out that their exposure to the English language would be scarcer without their smartphones, given the social and environmental factors surrounding them. Therefore, even if students solely accessed social networking apps on their smartphones, with a purposeful learning attitude, they would still improve their language skills due to the interactive and authentic L2 environment [46], [47]. Hence, as highlighted by S11, the exposure to the English language through his smartphone, even just a little, still benefitted him. Furthermore, by reading consistently on their smartphones, the exposure would help them familiarize themselves with grammar structures and improve their vocabulary knowledge [48].

### F. Evaluation of Digital Content

Students noted that most of the selected texts were mainly in the English language because there were more available resources compared to their L1. However, as older teens, the students found it necessary to evaluate the texts encountered online. They were mindful that not everything shared and published online is necessarily true, and that it is crucial to determine if some articles were inaccurate.

S8: Sometimes, some people shared something nonsense, so i decided not to look at about their posting. I am just scroll and scroll.

S4: Sometime I don't like the nonsense thing lah. Most of them do the nonsense thing, their Instagram, so I don't like it... I skip it.

Being older students and educated through public service announcements and informed before by their teachers or parents, they indicated that they were aware of the regular circulation of fake news. Table V lists students' evaluative standards when selecting texts to read on their smartphones.

Their evaluative actions revealed the standards placed by students so that they would not waste their time reading false information, and that they were somewhat careful in the

online environment. They also used their prior knowledge of the various sources to inform their decisions about the trustworthiness of those pages.

TABLE V: EVALUATION CRITERIA FOR TEXT SELECTION

Selection criteria	Reasons
<ul style="list-style-type: none"> <li>well-known websites</li> </ul>	<ul style="list-style-type: none"> <li>reliable sources for trustworthy news and information</li> </ul>
<ul style="list-style-type: none"> <li>prior knowledge of the various sources</li> </ul>	<ul style="list-style-type: none"> <li>confident with the content</li> </ul>
<ul style="list-style-type: none"> <li>check credibility of some websites</li> </ul>	<ul style="list-style-type: none"> <li>look at reviews or compare doubtful information with other trustworthy web sources</li> </ul>

S11: I will decide that it's correct or wrong based on where I get this lah. If it is from a official news site, I will trust it. But if it is from some, only some unknown or entertainment page, I won't trust it.

S12: I prefer to read trusted website such as government website or blog from well-known doctors.

Additionally, to clarify information and differentiate facts from opinion while reading, students pointed out that comparing doubtful information with other trustworthy web sources such as mainstream news portals helped.

S9: If I find that it sounds weird, I'll just go check at other pages, I'll read other articles about the same topic.

S1: I will just open the new tab, and let the, the tab before still open...And compare it.

They would then decide if they would continue reading or scroll over the content based on these. However, the students indicated that they may still occasionally doubt or be unsure of how the news was sourced.

S11: I think so lah. But I...I don't know, I don't know how they heard it.

Because of this, the students did not usually limit their sources to just a few but referred to many. Screen recordings showed that students tended to move from one text to another while reading on their smartphones to compare and check for credibility on similar topics. This helped them confirm the trustworthiness of the information that was read, although the same issue was read from different viewpoints.

## V. CONCLUSION

This study provided empirical evidence for certain assumptions which may have been previously made about EFL students' preferred text types and selection strategies on smartphones. In sum, students in this digital age, specifically referring to those in this study, generally do not plan or arrange their reading. Instead, findings revealed that most of them would visit their networking apps or social messaging platforms and read any random information or reading material posted there. Only a few students planned targeted reading sessions to peruse e-books or e-comics. However, in cases where students do select texts to read on the Internet, it was revealed that they would be attracted to texts with bold and catchy titles, and tended to select titles that appear at the top of the search page due to popularity. Nevertheless, they also evaluated the content and relied mainly on trusted sources. The kinds of digital texts accessed by students on their smartphones were generally in the English language because there were more varieties of information available

than in their L1. While short texts were mostly preferred and difficult, lengthy ones were avoided, they pointed out that they would still make an effort to research and read up interesting texts on topics that appealed to them, even if those texts were complex. As a whole, their exposure to various texts on their smartphones demonstrated opportunities for EFL students to be in contact with the English language in diverse types of discourse and language styles. This, in turn, indicates that digital reading is still helpful, especially for EFL students' reading exposure and the development of their interest in reading. However, the effects on their language still depend very much on the kinds of texts encountered from various platforms, social media posts, or messages they are engaged with. Therefore, our findings suggest that educators need to continue considering ways to help students be aware of their reading purposes and guide them to select texts efficiently on mobile screens. This may help digital readers process multimodal digital texts more effectively so that their language experiences in the authentic, real-life context effectively build their language skills. The study also brings awareness to parents about the current kinds of digital texts that their children may be engaged with. Parents could use the findings as an opportunity to share their children's interests while guiding them in their reading paths. Future content creators and website developers, on the other hand, need to consider how their online content could be shaped to attract a larger readership and consider improving the readability features on their smartphone applications and websites to serve their users more effectively. As recommended [49], the experience from using out-of-school digital skills on authentic platforms would then bring many benefits because these skills are transferable to educational settings.

#### CONFLICT OF INTEREST

The authors declare no conflict of interest.

#### AUTHOR CONTRIBUTIONS

Chen May Oh conducted the research while Pramela Krish and Afendi Hamat verified the data, provided valuable input for the qualitative method, analysis and the paper writing process.

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**Oh Chen May** is a PhD candidate with the National University of Malaysia and obtained her Mphil in English language studies from the same university in 2014. She is currently a master teacher with the Matriculation division under the Malaysian Ministry of Education and lectures in Negeri Sembilan Matriculation College. She is also a CEFR Familiarization Master Trainer, Google Certified Educator and an examiner for the Malaysian University English Test (MUET). She has presented and published chapters in books, journals, and proceedings at national and international levels. Her research interests include innovative pedagogical methods related 2nd language teaching and learning.



**Pramela Krish** obtained her PhD in English language studies from Universiti Putra Malaysia in 2006. She is currently an associate professor at the Centre for Research in Language and Linguistics, Faculty of Social Sciences and Humanities, National University of Malaysia. She specializes in applied linguistics and has researched and published works on online language learning, mobile learning and teacher professional development. Her research interests include technology-based language learning and the impact of new media in language learning and in society.



**Afendi Hamat** obtained his PhD in higher education and e-learning from Universiti Kebangsaan Malaysia (UKM) in 2009. He is currently an associate professor at the Center for Research in Language and Linguistics, Faculty of Social Sciences and Humanities, National University of Malaysia. He is an expert in e-learning and CALL and has published in fields related to technology-enhanced language learning as well as social media, e-learning and technology applications in public health.