

# Digital reading attitude, behavior, and use among Chinese EFL students

Wang, Shanshan ✉

Graduate School, Lyceum of the Philippines University - Batangas, Philippines ([shanshanw833@gmail.com](mailto:shanshanw833@gmail.com))

Received: 25 May 2024

Available Online: 1 August 2024

Revised: 25 June 2024

DOI: 10.5861/ijrsl.2024.034

Accepted: 25 July 2024

ISSN: 2243-7754

Online ISSN: 2243-7762

OPEN ACCESS



## Abstract

With the rise of the Internet and various portable intelligent devices, digital reading has become increasingly popular. Since technology is developing quickly nowadays, discussions about the effects of digital media on the young generation are getting increasingly popular. Moreover, social media has become essential to young people's lives. It plays a vital role in many aspects of teenagers' lives and changes their ways of receiving information and reading habits. Thus, this study determined the academic digital reading attitudes, behavior, and use among Chinese EFL students in order to propose an enhanced reading program for Chinese EFL students. Through a descriptive research design to describe and explain the variables identified, the study included 400 Chinese EFL students. As a result of the descriptive statistical analysis, the study revealed that most of the respondents are female, in freshman or junior year, and from urban areas. Furthermore, the study also revealed that English reading through the use of digital devices is useful for gaining information, as a form of relaxation, and for developing independent readers and digital academic English reading makes information-gathering easier for daily study needs, helps broaden the perspectives of individuals, provides an accessible way for students to learn. However, this may pose some health risks to individuals. The study also found that the internet ensures that learners are connected to the world and to different kinds of ideas. However, internet usage may also be a problem when users lack discipline and self-control. Inferential statistical analysis, meanwhile, showed that sex, grade level, and place of origin are not significant to reading attitudes. Only grade level is significant to digital reading behavior. Sex and grade level are relevant to internet usage and online reading habits. Reading attitudes are related to digital reading behavior, while digital reading behavior and digital reading use are also significantly related. An enhanced reading program for Chinese EFL students was proposed. The research recommends that strategies to further enhance digital academic reading may be developed by teachers to enhance the reading curriculum. Specifically, teachers may focus on encouraging students to engage in extensive reading to further enhance their reading skills. Teachers must focus on ensuring that the student's English proficiency is continuously enhanced through digital reading. Finally, more activities should be designed to incorporate the practice of digital reading and English language learning.

**Keywords:** digital reading attitude, digital reading behavior, digital reading use

## Digital reading attitude, behavior, and use among Chinese EFL students

### 1. Introduction

With the ascent of the Internet and handy intelligent devices, digital reading has become increasingly widespread. Because of the quick development of technology, discussions about the effects of digital media on the youth are becoming prevalent. Moreover, social media has become a vital part of people's lives. It plays a crucial role in the different aspects of human lives and changes their ways of receiving information through reading.

Young people's reading habits are benefited by digital media since the advancement of science and technology is primarily done for human convenience. According to Liu et. al., (2023), 64.4% of the world's people are internet users; there are 4.62 billion social media users. These numbers show how the digital world brings convenience to the lives of people – in work, communication, education, and health. Social internet exposes young people to a wealth of information that books cannot teach them, encouraging them to read more. People's reading habits may be strengthened and encouraged by regular exposure to material on the Internet. Readers' perceptions of users and their reading habits will be greatly impacted by the Internet and the modern digital environment in general. The variety of reading materials has greatly increased with the introduction of the Internet, which now includes blogs, wikis, electronic books, journals, papers, emails, discussion forums, chat rooms, instant messaging, and other multi-media publications. People can now use their personal computers to view and discover information from the internet. Thus, reading can be increasingly reachable to everyone. However, there are a number of disagreements regarding the drawbacks of teen use of digital media. Due to the internet's rapid development and growing popularity, young people have many options for conducting online searches. Multimedia platforms offer attractive ways to present information. For instance, young people's attention might be easily drawn to the colorful and graphic interfaces. Furthermore, avid readers spend more time reading in the different formats of digital media. Therefore, the impact on future generations might begin even before they are born, and one consequence of teens' increased use of the Internet is a decline in their inclination to read printed books (Guo, 2023).

In China, digital reading has gained more and more popularity. The 18th annual study on people's reading habits was just released by the Chinese Academy of Press and Publication. Between September and December, 46,000 questionnaires were administered in 167 cities. According to the research, 81.3 percent of Chinese adults read in print or on their smartphones and other digital gadgets in 2019. This represents a 0.2 percent increase over the year 2019. Furthermore, adults read 3.29 digital books and 4.7 printed books on average last year, down from 2.84 and 4.65 correspondingly in 2019 (Xu, 2019). These results demonstrate that both the readership and popularity of digital reading have grown dramatically.

Additionally, Chinese consumers read digitally at a penetration rate of about 80.1%, which shows a steady increase. According to a poll conducted in April 2023, the average consumption of digital books by a single Chinese reader was 3.33 (Thomala, 2023). Continuous research is necessary in light of these statistics and the conflicting opinions regarding the benefits and drawbacks of digital reading. According to Althewini et. al.,(2023), reading is noticeable in teaching English as a foreign language (EFL), as students learn more effectively through written texts. In the meantime, Hasan (2023) stressed that reading intelligence is essential for people's intellectual, behavioral, and psychological development since it helps them read written language more fluently and understand information better. Reading comprehension is a lifelong skill that is developed in early childhood and is essential to success in both school and the workplace.

Positive reading attitudes are believed to affect students' present and future academic success. As per previous research, reading attitude is among the most important factors that impact reading. A person's reading attitude, which determines whether they are motivated to read books, influences their reading behavior during their youth. It suggests that children's emotional and attitudinal responses toward reading are affected by their command and

consciousness of its significance. Reading attitude refers to a multifaceted set of reactions and affective responses that impact an individual's tendency to participate with or evade reading-related actions (Althewini et. al.,2023; Hasan, 2023). Muchtar (2015) states that attitude may be understood through the ABC model (affect, behavioral change, and cognition). The affective response is a physiological response that conveys an individual's partiality for an entity. Readers who enjoy reading on a digital device are more inclined to use this platform frequently. In language instruction, emotion, according to Liu et. al.,(2021), refers to the learners' attitudes, feelings, and so forth. Students' attitudes toward learning can be impacted by a variety of emotional factors. When it comes to reading, for instance, learners who are not fluent in the language may feel anxious about it. Students might not be able to fully understand the text as a result. Conversely, behavioral intention is a person's intention expressed verbally. This attitude component demonstrates how students will behave when using digital reading. Nisak (2023) claims that the conative element is what makes someone achieve the goals they set. It at least prompts someone to reply with a specific reading goal. According to her research, although kids think reading has a good effect on them, they would rather do something else than read. Therefore, the act will not happen if it is not intended to be done. Lastly, the cognitive response is a cognitive evaluation of the object to shape an attitude. This aspect displays the thoughts and beliefs of students toward digital reading. A positive attitude regarding digital reading could include a declared conviction on the significance of this kind of reading. According to Septianingsi et. al.,(2021), reading's linguistic, intellectual, and practical values are all correlated with a cognitive attitude. Furthermore, they discovered a strong correlation between reading comprehension and cognitive attitude. Students should understand that reading English-language materials is crucial to both their future achievement and language development.

In the study by Liu et al. (2023), they focused on the mobile reading of college students in China and the factors of reading engagement from readers' viewpoints. The findings showed that the college students' perceptions of a range of elements, such as reading experience, reading efficacy, motivational needs, and reading techniques, were influencing their involvement in mobile reading. However, the students' methods, self-efficacy, and reading experience suggested that they occasionally struggled with mobile reading. In another study by Tian et al. (2022), they found that their respondents have positive attitudes on perceptions toward smartphone-based reading. Although they did not present strong feelings about it or form a habit of using mobile phones for reading, they can see its practicality and usability. These contradictory findings highlight the need for additional research on students' perceptions of digital reading. Globally, the epidemic has altered everything, particularly in schooling. Determining the influence of technological applications and intentions on students' digital learning behavior is therefore crucial. Because digital books are interactive and versatile, they offer a better reading experience. According to Hooper et. al.,(2014) research, the proliferation of online content, faster reading speeds, and enhanced skimming skills all contributed to an increase in the quantity of reading that occurred when people read online. Alcott (2021) noted that the influence also included shifts in readers' patience, multitasking, distraction, eye strain, and scanning as opposed to reading through print. Because of this significant shift in the choice of reading mode, it is important for educators to understand the digital reading behavior of learners. According to Zhou (2022), the accessibility of the Internet and digital media has transformed how students read. Due to the increasing usage of digital devices, students now read in various ways. Reading electronic texts has altered students' information-gathering and information-outputting activities, which inevitably alters their cognitive patterns and affects their reading.

In terms of behavior, students may have different opinions and experiences regarding the expectations, efforts, convenience, social impact, and risks of digital reading. Digital reading platforms offer benefits that traditional printed books cannot match in terms of expectations, convenience, and social impact, such as accessibility and lower cost. With the advent of book clubs and tailored suggestions, reading has become a more communal and involved experience thanks to online libraries. When it comes to learning English, Shanghai Library has adapted to the shifting reading preferences of its patrons by adding 103 online books of Chinese literature to its collection of traditional library materials. This illustrates how internet culture is becoming more and more accepted, especially among youth (Raj, 2023). Zhou (2022) states that the easy availability of the Internet and digital media is significantly changing how students approach reading. With the widespread use of digital devices, students now

read in diverse ways. Jiawook (2021) argues that digital technology can support and enhance English vocabulary development and reading skills. Because of technology, people may write and read in a variety of ways, and both adults and children now utilize digital tools on a daily basis. Using digital technologies in the classroom, such e-books, can help students increase their vocabulary. Meanwhile, it is important to acknowledge certain risks. A study by Chang et al. (2023) examined the behavioral traits of college students when engaging in digital academic reading. The research delved into the internal and external environmental factors influencing the intent and behavior of digital academic reading. Their findings revealed that college students perceive potential risks associated with digital academic reading, particularly regarding information quality, such as pop-up windows and personal information disclosure.

In recent years, technology has had a major impact on how people interact and consume written information. It is hardly surprising that a lot of people have started reading more digitally given the popularity of smartphones, tablets, and e-readers (Guo, 2023). Everyone can read more easily and enjoyably with the help of digital reading. People can read in the bus, study room, canteen, and other locations since digital reading is neither time- or space-limited, which demonstrates the convenience of digital reading. Moreover, incorporating digital texts in the English classroom has the incredible potential to enrich students' vocabulary, ignite a passion for reading, and foster independent reading skills. This approach is poised to empower students, nurturing them into capable and enthusiastic readers (Jiawook, 2021). Reading and information accessibility are made simpler and more pleasurable with digital reading. Another benefit is that reading motivation and enthusiasm are greatly increased when using media technologies connected to the Internet. This data demonstrates that students see using the Internet for reading comprehension assignments favorably (Bana, 2020). Thus, it is essential to investigate the impact of using the internet for reading on student motivation and reading habits. According to Bana's study in 2020, students reported a positive influence of the internet on their reading habits. Another study by Yusof (2021) found that students' reading habits have undergone significant changes due to the development of information and technology, gradually shifting from printed books to online resources. Due to technological advances, electronic reading materials have proliferated to create a digital reading environment that is free for all. Reading on a screen encourages multitasking, a different form of attention, and a different processing speed. Students who skim will be significantly more drawn to erroneous or worse news. Digital media and the abundance of online contact and information have raised concerns about encouraging quick and superficial reading. As a result, more young people require more proficient reading in all formats. Furthermore, less note-taking and other study techniques were employed by pupils who read on screens (Alcott, 2021). There is still reluctance towards the regular use and benefits of digital reading. Additionally, the initial literature review revealed that there are very few studies focusing on Chinese students' attitudes toward digital or online reading, as well as their behavior and use of the technology. Based on this information, the researcher developed this study to examine the attitudes of learners towards digital reading, as well as their digital behavior and use. Digital reading can both be advantageous and disadvantageous to a learner. Thus, it is necessary to investigate further on the topic and find a balance between and use it more to its advantage. Finding a balance between the advantages and disadvantages of digital reading is crucial for optimizing its benefits for learners. By understanding the potential drawbacks and implementing strategies to mitigate them, educators can harness the power of digital reading to support diverse learning needs and preferences.

***Objectives of the Study*** - The purpose of this study was to determine the digital reading attitudes, behavior, and use among Chinese EFL students in order to propose an enhanced reading program for Chinese EFL students. Specifically, this determined the respondents' digital reading attitudes as to cognitive, affective, and behavioral; identified the respondents' digital reading behavior in terms of their expectations, efforts, social impact, convenience, and risks; assessed the respondents' digital reading use as to using the internet and online reading habits; tested the significant relationship between academic English reading attitude, digital behavior, and use; and propose an enhanced reading program for Chinese EFL students.

## 2. Methods

**Research Design** - The purpose of this study was to determine the academic English digital reading attitudes, digital behavior, and use among Chinese EFL students in order to propose an enhanced reading program for Chinese EFL students. To achieve this, the research employed descriptive research. Descriptive study is intended to depict the distribution of one or more variables without considering any causal or other hypotheses (Aggarwal et al., 2019). Additionally, descriptive research is a methodological approach that illustrates the characteristics of a phenomenon or subject under investigation. In scientific inquiry, it serves as a fundamental tool for researchers who aim to observe, record, and analyze the intricate details of a particular topic. This method provides a comprehensive and detailed account that facilitates understanding, categorization, and interpretation of the subject matter (Singh, 2024). Quantitative methods were used in the data collection. Specifically, the survey technique was utilized. The survey technique involves collecting primary data about subjects, usually by selecting a representative sample of the population or universe under study through a questionnaire. In addition, the survey method generally refers to the process used to gather data. It influences the researcher and participants' exchange of ideas and information (Vijayamohan, 2023). Additionally, surveys are often used to describe and explore human behavior, they are frequently used in social and psychological research (Ponto, 2015). A correlational study is a type of research design that examines the relationships between two or more variables. In correlational studies, the researcher does not manipulate or control the variables, making them non-experimental. The goal of correlational studies is to determine whether there are differences in the characteristics of a population based on whether or not its subjects have been exposed to a particular event in a naturalistic setting (Cherry, 2023).

**Participants of the Study** - The participants of the study were 400 Chinese English as a Foreign Language (EFL) students from Yantai Nanshan University. These respondents were chosen as they were most knowledgeable about the topic. Using the the *Raosoft* sample size calculator, 400 Chinese EFL students was the sample size determined from the total population of 850 EFL students from universities in China. The student respondents were selected using simple random sampling technique.

**Instruments of the Study** - The survey questionnaire comprised four parts. The first part aimed to gather information about the respondents' profiles, including their gender, grade level, and place of origin. The second part focused on the respondents' attitudes towards academic English reading, covering cognitive, affective, and behavioral aspects. This section was adapted from a study titled "Students' Attitude towards Digital Reading: A Study in Universities in Kerala, India" by Divya and Haneefa K, Mohamed. The third part addressed the respondents' digital reading behavior, focusing on their expectations, efforts, social impact, convenience, and perceived risks. This section was adapted from the "Study on Factors Influencing College Students' Digital Academic Reading Behavior." Meanwhile, part IV delved into the respondents' digital reading habits. This section was adapted from Manuel's work titled "Students' Perception of Using the Internet to Develop Reading Habits: A Case Study at the English Education Department" and "The Effect of Technology Resources on College Sophomores' Reading Habits in Ilocos Sur Polytechnic State College, Philippines." The questionnaire was thoroughly verified and validated to ensure its reliability. A panel of experts in the field initially examined the instrument to ensure that it effectively measures the identified variables. These results indicate that the instrument consistently measures the intended constructs and can be relied upon to provide accurate and consistent data. The questionnaire was derived from George and Mallery (2003). The Cronbach's alpha values indicate that the items in each section are interconnected and contribute effectively to measuring the variables. Therefore, the reliability of the instrument enhances the credibility and legitimacy of the research findings.

**Data Gathering Procedure** - The conceptualization of this study was initially based on the researcher's observation of the current situation in the proliferation of digital reading among students. With firsthand information about the status of the said topic, the researcher gathered information to identify the study's variables. Based on the literature review, the variables were identified and finalized. Also, based on existing literature, the researcher decided on the research design and data collection strategies to be used. The data-gathering procedure in this study involved collecting data from the respondents using a validated survey questionnaire with rating

scales. The questionnaire was constructed based on information gathered from a review of related literature. The questionnaire draft was then submitted to the research adviser and experts for content validation. Different experts in the field validated the tool in terms of content and grammar. The comments and suggestions were then incorporated into the draft, which was again submitted to the validators. After the questionnaire was validated and finalized, pilot testing was conducted for reliability. The research instrument was then approved and finalized for administration. Before administering the research instrument, the researcher prepared the necessary letters to conduct the study. Upon approval of the school heads involved, the questionnaires were distributed to 400 students of Yantai Nanshan University. After the data were analyzed, the findings were discussed, interpreted, and supported with existing literature. Based on the discussion and interpretation of findings, conclusions were drawn. Recommendations were also formulated based on the conclusions and possibilities for future researchers.

**Data Analysis** - The quantitative data collected were analyzed using SPSS to answer the research questions. Descriptive statistics were used to describe the respondents' digital reading attitudes and behaviors. Weighted mean was used to analyze the data on the English teaching strategies of the respondents. The weighted mean is a type of average where some data points contribute more to the final mean than others. In contrast to the arithmetic mean where each data point has equal weight, the weighted mean assigns different weights to different data points. When all the weights are equal, the weighted mean is equivalent to the arithmetic mean. Weighted means are commonly used in statistics, particularly when analyzing populations (Ganti, 2022). In addition, a correlation analysis was also conducted to determine if there was a significant relationship among digital reading attitude, digital reading behavior, and digital reading use.

**Ethical Considerations** - The researcher kept their identities and personal information confidential to safeguard the privacy of the respondents. They ensured respect and confidentiality in all interactions with participants and obtained consent before accessing sensitive information. The analysis prioritized the well-being of the participants and aimed to accurately represent their data in the study. The researcher refrained from expressing personal opinions and presenting information and findings that were not based on the collected data. Respondents were informed that the survey would only be used for this study. Additionally, the study underwent an ethics review process before being approved.

### 3. Results and discussion

**Table 1**

*Summary Table on Digital Reading Attitude*

Indicators	Weighted Mean	Verbal Interpretation	Rank
Cognitive	3.10	Agree	3
Affective	3.18	Agree	1
Behavioral	3.15	Agree	2
Composite Mean	3.14	Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Table 1 shows the summary table on digital reading attitude. The overall composite mean of 3.14, which is verbally interpreted as agree, shows that the respondents have positive attitudes toward digital reading. Among the three variables, the affective aspect ranked first while the cognitive aspect ranked last.

The attitude of a person towards an endeavor is one of the most crucial considerations to achieve success. When a person feels positively towards something, it is most likely that this person will pursue it and become successful and satisfied. Althewini et. al.,(2023) assert that one of the most important variables influencing reading is one's attitude toward reading. Childhood reading behavior is influenced by an individual's reading attitude, which defines their propensity to read books. In addition, students' attitudes toward learning can be impacted by a variety of emotional factors. When it comes to reading, for instance, learners who are not fluent in the language may feel anxious about it. As a result, it is possible that pupils may not be able to fully understand the material (Liu et. al.,2021). Krashen's Affective Filter Hypothesis states that a person's emotions can either positively or

negatively impact their ability to acquire a new language. This means that a person's emotions or attitudes should be a foremost consideration in the teaching and learning process.

Meanwhile, the behavioral aspect of reading attitudes ranked second overall. This component of attitude shows how students will act toward digital reading. Although the affective and cognitive aspects are important components of reading attitude, the most important thing is still whether the individual acts upon his feeling or knowledge. In other words, when it comes to reading, it should be observed whether the student actually performed the act of reading. According to Nisak (2023), there should be an intention to read for the act to be pursued. However, sometimes the intention is not enough. The study found that although students believe reading can have a positive impact on them, they prefer activities other than reading.

Last overall is the cognitive aspect of reading attitudes. This component shows the thoughts and beliefs of students regarding digital reading. When students are aware of the benefits of digital reading, it is most likely that they are to read for both intellectual and leisure purposes. Septianingsi et. al.,(2021) found that cognitive attitude significantly correlated with reading comprehension. This shows that when a reader has positive cognitive attitudes toward reading, there is a greater chance for reading comprehension.

**Table 2**

*Summary Table on Digital Reading Behavior*

Indicators	Weighted Mean	Verbal Interpretation	Rank
Expectations	3.14	Agree	3
Efforts	3.17	Agree	2
Social Impact	3.21	Agree	1
Convenience	3.10	Agree	5
Risks	3.13	Agree	4
Composite Mean	3.15	Agree	

*Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree*

Table 2 shows the summary table on digital reading behavior. The composite mean of 3.15 shows that the respondents generally agreed with the indicators under digital reading behavior. Among the variables, social impact gained the highest weighted mean of 3.21. This was followed by efforts, expectations, risks, and convenience, respectively.

The majority of teenagers are online and have access to digital devices. The rapid increase in smartphone users indicates this strong trend. The internet and digital devices play a significant role in today's culture. Social media helps users stay connected to friends and find communities and support for specific interests. The results above show that social impact gained the highest composite mean for digital reading behavior. With the prevalence of the internet, digital reading has also become a social experience where readers share thoughts. According to Podbolotova et. al.,(2021), digital socialization is considered a feature of a new form of socialization of a modern person. As mentioned, digital socialization is inevitable since the world is continuously becoming modern and interconnected. Also, digital reading helps readers expand their knowledge about the world.

In general, it has been established that reading improves learners' academic skills, particularly reading comprehension. However, there are mixed opinions about digital reading. Most literature suggests that digital reading does not enhance comprehension. Niccoli (2015) found that readers of printed material achieved higher scores in both multiple-choice recall and short answers, indicating better comprehension. This study implies that traditional reading leads to improved comprehension. On the other hand, Stiegler-Balfour (2023) argued that existing reading comprehension skills could also influence comprehension in digital reading. Therefore, it is not solely determined by the mode of reading, but also by the students' skills.

Meanwhile, digital reading in terms of expectations ranked third overall. As to expectations, the respondents considered digital reading as something that is simple, convenient, and user-friendly. These features are some of the most significant advantages of digital reading as a mode of reading. According to Zhou (2022), the internet has

opened up new opportunities for students to locate and utilize information necessary for their academic assignments. The easy accessibility of the internet and digital media is fundamentally changing how students read, and students' information-gathering habits have shifted as a result of digital reading. In addition to the convenience of digital reading, it also aids in improving English reading skills, as demonstrated by Hooper et. al.,(2014). They highlighted that the internet enhances interactivity in language learning.

The advantages of digital reading are numerous, but it also comes with several risks. These risks include concerns about information quality, privacy and security, and potential health issues, which are often linked to excessive and careless use of digital devices. Studies have shown that prolonged digital reading may lead to eye strain, headaches, neck pain, and dry eyes (Alcott, 2021). Furthermore, it is essential for students to apply critical thinking skills to evaluate the information they find online (Melati et. al.,2023). Although convenience is the last among the digital reading behaviors, it is still considered an important aspect. Digital reading offers the advantage of allowing students to read academically anywhere, at any time. Wood (2022) emphasized that digital devices have become central to academic research, providing personalized learning, a wide breadth of information, more engaging lessons, accountability, flexibility, and connected learning. Finally, digital reading opens up numerous possibilities and allows users to easily learn and explore new things through digital devices (Zhou, 2022). Students can read more conveniently in a digital format as it is not restricted by time or location (Chen, 2019).

**Table 3***Summary Table on Digital Reading Use*

Indicators	Weighted Mean	Verbal Interpretation	Rank
Using the Internet	3.14	Agree	2
Online Reading Habits	3.20	Agree	1
Composite Mean	3.17	Agree	

*Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree*

Table 3 shows the summary on digital reading use. The composite mean of 3.17 shows that the respondents agreed with the indicators as to the use of digital reading. Of the two variables, online reading habits gained the higher weighted mean over using the internet.

The reading habits of students are important considerations for their academic success. Online reading habits pertain to how students consume and process reading materials available on the internet. With easy access to information through the internet, students need to adapt their learning and information-gathering habits from traditional methods to more modern ones. Nowadays, students can accomplish everything online, simply by browsing or clicking on the internet. The respondents agreed to all the indicators under online reading habits; thus, it can be gleaned that they have developed such habits. They consider digital reading as a part of their life as students and in learning the English language. Bana (2020) and Yusof (2021) revealed that the rise of information technology has changed the trends of students' reading habits, which are slowly moving from printed to online sources. Digital reading has been preferred by students nowadays because it makes reading and information more accessible. Tiwary et al. (2024) found that while students prefer electronic resources, they need help accessing them due to various factors such as cost and availability. This means that while students turn to digital reading, they should be provided by proper guidance to avoid problems.

Digital reading allows for personalized learning experiences through interactive exercises and quizzes that cater to individual learning styles. The ability to access a vast array of online texts and resources helps learners to expand their vocabulary, improve reading comprehension, and strengthen language skills. Additionally, digital platforms provide opportunities for students to practice listening and speaking, thereby enhancing overall language fluency. With the flexibility and convenience of digital reading, learners are able to engage with English content at their own pace and convenience, making learning more accessible and enjoyable. Ultimately, the integration of digital tools in language learning serves to empower individuals to reach their language learning goals efficiently and effectively. Furthermore, it promotes enhanced mobility, accessibility, convenience, interactivity, authenticity, and vocabulary enrichment, thereby significantly benefitting language learners. This digital approach provides a



platform for learners to engage with various interactive materials that are authentic (Jiawook, 2021).

Meanwhile, using the internet ranked second in digital reading use. This variable refers to the many advantages of digital reading. Using the internet also allows students to access a wealth of resources, from online libraries and academic journals to educational videos and tutorials. This can greatly enhance a student's learning experience and understanding of topics. Furthermore, the internet provides opportunities for collaboration with other students through online discussions, group projects, and virtual study groups. Moreover, the internet offers countless opportunities for self-directed learning, with students able to engage in independent research and discover new interests and passions. This can help to foster critical thinking skills and a thirst for knowledge that goes beyond the confines of the classroom. Overall, the internet plays a crucial role in fostering digital literacy, expanding students' horizons, and facilitating continuous learning. It has become an indispensable tool for students in today's increasingly interconnected and technologically driven world.

According to Jiawook (2021), technological innovations have made it possible for individuals to read in various ways, and digital tools have become a part of everyday life for both children and adults. This accessibility has revolutionized language learning, enabling people to interact with English materials at their own convenience and pace. With countless websites, apps, and online resources available, learners can access a wide variety of materials tailored to their individual needs and interests. This shift towards digital language study has also opened up new opportunities for interactive and engaging methods of learning, such as virtual language exchange programs and online classes. Ultimately, the ease of access to English language resources on the Internet has democratized language learning, making it more accessible to individuals around the world (Hidayat et al., 2022; Kamaie et al.,2023; Hooper et. al.,2014; Haoning et. al.,2020).

This increased engagement with digital platforms can lead to increased reading habits among students as they are more likely to be motivated to read in these visually stimulating environments. With features such as interactive graphics, videos, and audio, digital reading provides a multi-sensory experience that can capture and hold students' attention more effectively than traditional print materials. As a result, students may find themselves reading more frequently and for longer periods of time when using digital platforms, ultimately helping to improve their reading skills and comprehension. Additionally, the convenience of accessing digital reading materials online or through dedicated e-reader devices means that students can easily fit reading into their busy schedules, further boosting their motivation to read. In this way, digital reading not only enhances students' reading experiences but also encourages them to develop a lifelong love of reading (Guo, 2023).

Table 4 presents the association between english reading attitude and digital reading behavior. The computed r-values specifies a very strong direct correlation and the resulted p-values were all less than the alpha level. This means that there was significant relationship exists and implies that the better is the English reading attitude, the better is the digital reading behavior. The results above support the study of Rafi et al. (2021) which stated that reading attitude affects the behaviors such as; intention to reading and sustain reading activity. The mentioned behaviors have a substantial impact on various aspects of the reading process, encompassing reading proficiency, strategic decision-making during reading tasks, the selection of appropriate texts, the level of attention allocated to reading materials, and the overall comprehension of textual content. Each of these elements is intricately intertwined with the individual's behavioral patterns, contributing significantly to the efficacy and depth of their reading experiences. Understanding and addressing these behaviors is paramount in fostering enhanced reading abilities and cultivating a profound engagement with diverse forms of written communication. Attitude in reading is an internal aspect that helps develop reading skills. It is a psychological construct and a critical predictor of an individual's behaviors, with cognitive, affective, and behavioral dimensions.

**Table 4***Relationship Between English Reading Attitude and Digital Reading Behavior*

Cognitive	r-value	p-value	Interpretation
Expectations	.932**	0.000	Highly Significant
Efforts	.877**	0.000	Highly Significant
Social Impact	.838**	0.000	Highly Significant
Convenience	.912**	0.000	Highly Significant
Risks	.935**	0.000	Highly Significant
<b>Affective</b>			
Expectations	.884**	0.000	Highly Significant
Efforts	.821**	0.000	Highly Significant
Social Impact	.806**	0.000	Highly Significant
Convenience	.882**	0.000	Highly Significant
Risks	.881**	0.000	Highly Significant
<b>Behavioral</b>			
Expectations	.950**	0.000	Highly Significant
Efforts	.884**	0.000	Highly Significant
Social Impact	.840**	0.000	Highly Significant
Convenience	.919**	0.000	Highly Significant
Risks	.927**	0.000	Highly Significant

*Legend: Significant at p-value < 0.01*

Furthermore, the attitude that a student harbors towards reading material or mode plays a crucial role in shaping his or her perceptions and beliefs regarding digital reading platforms. A positive reading attitude can lead to a more open-minded approach towards digital reading, viewing it as a valuable tool for accessing information and enhancing learning experiences. Conversely, a negative reading attitude may foster skepticism or reluctance towards engaging with digital texts, potentially hindering the student's ability to adapt to modern reading technologies. Therefore, educators and parents should strive to cultivate a positive reading attitude in students, as it can significantly influence their acceptance and utilization of digital reading resources in academic settings.

Lastly, the attitude a student holds towards reading plays a crucial role in shaping his or her perception of digital reading. A student's reading attitude encompasses various aspects such as interest, motivation, and engagement with different types of texts. When a student possesses a positive reading attitude, characterized by curiosity and enthusiasm for exploring new content, this can translate into a favorable outlook on digital reading. Conversely, if a student harbors negative feelings towards reading in general, this can similarly color their perceptions of digital reading experiences. Therefore, educators and parents should strive to cultivate a positive reading attitude in students, as it can significantly influence their acceptance and engagement with digital reading materials.

Table 5 displays the association between English reading attitude and digital reading use. The computed r-values shows a very strong direct correlation and the resulted p-values were all less than the alpha level. This means that there was significant relationship exists and implies that the better is the English reading attitude, the better is the digital reading use. The findings provide support for the research conducted by Alsaedi et al. (2021), which examined the reading habits and attitudes of university students. Reading plays a fundamental role in the learning process. Understanding reading habits and cultivating positive attitudes towards reading are paramount in the realm of education. The way individuals perceive reading is intricately connected to their engagement in reading activities. Having a positive mindset towards reading is imperative for achieving success in the educational journey. It is crucial to develop fluency, comprehension of various reading strategies, and maintain a favorable outlook on reading to establish a solid foundation in essential reading skills. The alignment of these components is fundamental in fostering a conducive learning environment and enabling individuals to harness the power of reading effectively.

**Table 5***Relationship Between English Reading Attitude and Digital Reading Use*

	r-value	p-value	Interpretation
<b>Cognitive</b>			
Using the Internet	.928**	0.000	Highly Significant
Online Reading Habits	.875**	0.000	Highly Significant
<b>Affective</b>			
Using the Internet	.894**	0.000	Highly Significant
Online Reading Habits	.867**	0.000	Highly Significant
<b>Behavioral</b>			
Using the Internet	.932**	0.000	Highly Significant
Online Reading Habits	.887**	0.000	Highly Significant

Legend: Significant at  $p$ -value < 0.01

Another study by Alsaedi et al. (2021) found that students overall reading attitude as college students is related to their reading habits. It can be inferred that the cultivation of positive reading attitudes among students plays a pivotal role in fostering the development of their reading habits. When students exhibit a genuine fondness for reading, characterized by enthusiasm, curiosity, and a sense of enjoyment towards literary pursuits, they are more likely to engage in frequent and sustained reading activities. This positive disposition towards reading not only enhances their motivation and eagerness to explore various genres and literary works but also instills a sense of discipline and commitment towards regular reading practices. As a result, the correlation between positive reading attitudes and the formation of consistent reading habits becomes apparent, as students who view reading in a positive light are inherently inclined to integrate it as a meaningful and fulfilling aspect of their daily routine.

**Table 6***Relationship Between Digital Reading Behavior and Digital Reading Use*

	r-value	p-value	Interpretation
<b>Expectations</b>			
Using the Internet	.938**	0.000	Highly Significant
Online Reading Habits	.883**	0.000	Highly Significant
<b>Efforts</b>			
Using the Internet	.885**	0.000	Highly Significant
Online Reading Habits	.811**	0.000	Highly Significant
<b>Social Impact</b>			
Using the Internet	.821**	0.000	Highly Significant
Online Reading Habits	.834**	0.000	Highly Significant
<b>Convenience</b>			
Using the Internet	.937**	0.000	Highly Significant
Online Reading Habits	.839**	0.000	Highly Significant
<b>Risks</b>			
Using the Internet	.905**	0.000	Highly Significant
Online Reading Habits	.883**	0.000	Highly Significant

Legend: Significant at  $p$ -value < 0.01

Table 6 shows the association between digital reading behavior and digital reading use. The computed r-values presents a very strong direct correlation and the resulted p-values were all less than the alpha level. This means that there was significant relationship exists and implies that the better is the digital reading behavior, the better is the digital reading use.

It is evident from the results above that the respondents' digital reading behavior regarding expectations, efforts, social impact, convenience, and risks is highly significant to their use of digital reading in the future. This means that the more positive results regarding digital reading behavior, the higher the possibility of digital reading use among users. For instance, the more positive the expectations, efforts, and beliefs about convenience are toward digital reading, the higher the possibility of digital reading use. When students believe or expect that digital reading is an endeavor which can make their student life more convenient and that their English can improve, their online reading use and habits will increase. As mentioned by Bana (2020), students view the internet as a primary source of information for their school works. Thus, more and more students are turning to digital reading because

of its convenience and reliability. Because of this, students should be properly educated about digital reading for them to maximize its benefits.

Regarding the relationship between social impact and digital reading use, students become influenced to choose this mode of reading because it has become a trend nowadays. In turn, students are able to learn about the world because of digital reading. This means that this process has become a cycle: students learn about digital reading from their environment, and while they use this mode, they learn about the world around them. According to Ward (2024), digital reading is a recent trend and a norm among young readers, particularly digital natives. Students prefer e-reading due to its accessibility. Meanwhile, digital reading has the potential to change or transform a person's mind and learn about the views of other people (De Agüero et al., 2018). Eventually, when students learn about the world around them, they also develop in terms of socializing with others. One of the advantages of being connected to the world is that users improve how they see others and how they handle themselves in relation to other people.

In their study, Podbolotova et al., (2021) underscored the pivotal role of exposing students to diverse cultures and ideas in enhancing their ability to engage in more effective social interactions. By immersing themselves in a variety of cultural perspectives and intellectual viewpoints, students gain a broader understanding of the world around them, thereby fostering an inclusive and open-minded approach to socializing. This exposure not only cultivates a more profound sense of empathy and appreciation for diversity but also equips students with the necessary skills to navigate social situations adeptly and communicate with individuals from various backgrounds. Consequently, the integration of multicultural education and exposure to diverse ideas contributes significantly to the development of well-rounded individuals capable of engaging meaningfully in a globalized society.

Finally, digital reading behavior as to risks was also found significant to digital reading use. This finding means that the perceived risks of digital reading may influence the use of internet and online reading habits of students. When students are aware of the risks digital reading may pose, their digital reading use may be affected. For instance, if they are aware that digital reading may affect their health (Alcott, 2021), they may choose to lessen the time spent on this activity. It is imperative, therefore, that students are equipped with a comprehensive understanding of the potential hazards associated with digital reading. Such awareness is paramount in empowering students to discern, assess, and ultimately make well-informed decisions when engaging with digital information, thereby fortifying their critical thinking skills and enhancing the overall quality of their academic endeavors.

**Table 7**

*Proposed Program to Enhance Reading - Online Reading for Chinese EFL Students*

Key Result Area	Objectives	Program/ Projects	Success Indicators	Persons involved
English Reading Attitude in terms of Cognitive Aspect	To ensure information recall while reading digitally	Preview, Read, Recall <i>*A module on teaching recall strategies</i> 1. Previewing of material in the text to develop a framework for what is going to be read 2. Interacting with the text through jotting down information, annotating, writing a summary, creating flashcards, and highlighting 3. Recalling mentally, reciting orally, and writing down the highlights of the material read Word Game of the Season	1.90% of students develop and use recall strategies 2. 90% of students are able to recall the information they read 3. 90% of students are able to comprehend information they read	Teacher and students
	To strengthen English vocabulary development through digital reading	<i>*A module containing different reading materials and interactive games and activities</i> 1. Development of an online tool that instructors can share with students to improve vocabulary skills 2. Providing interactive, fun, and easy to navigate materials where students can read and practice vocabulary knowledge 3. Developing student-friendly content to encourage students to read more	1. 90% of students have access to the online reading lab; 2. 90% of students use the vocabulary activities in the online reading lab; 3. 90% of students have improved vocabulary skills	Teachers, students, practitioner in the field

## Digital reading attitude, behavior, and use among Chinese EFL students

Digital Reading Behavior in terms of Convenience	To orient students on the basics of digital academic reading	Digital Reading Know-Hows <i>*A module on the basic information about digital reading; to be found in the starting page of the reading lab</i> 1. Orientation for students on the basic information about digital academic reading 2. Development of an infographic or students regarding digital academic reading	1. 90% of students are familiar with the basic information about digital academic reading 2. 90% of students have access to the infographic on digital academic reading	Teacher and students
	To provide students with information on different academic reading platforms	Choose Wisely, Read Freely <i>*A module containing different platforms students can use</i> 1. Development of an infographic containing a list of academic reading tools and platforms 2. Demonstration and discussion of how to use different academic reading tools and platforms	1. 90% of students have access to the infographic on academic reading tools and platforms 2. 90% of the students can freely and wisely choose what platform or tools will suit their needs best	Teacher and students
Digital Reading Use in terms of Using the Internet	To develop digital materials for English language learning	Digital English Era <i>*A module containing teacher-made and up-to-date reading materials</i> 1. Development of contextualized reading materials for English language learning 2. Implementation of digital materials for English language learning in the classroom 3. Evaluation of the developed digital materials for English language learning	1. 90% of students have access to the digital English language learning materials 2. 90% of students use the developed materials 3. 90% of students are engaged and interested to learn English through digital reading	Teacher and students
	To design activities that develop reading abilities through digital reading	Digital Reading as a Social Experience <i>*A module on digital reading etiquette and making reading a shared experience</i> 1. Training students to read in digital space 2. Walkthrough of the capabilities and features of digital content to be used 3. Using interactive technology to bring material to life and individualized feedback 3. Peer sharing about the digital content used	1. 90% of students are proficient in digital reading 2. 90% of students improve their reading abilities 3. 90% of students show comprehension through peer sharing and discussions	Teacher and students

This proposed program in the form of an Online Reading Laboratory aims to contribute to the enhancement of reading skills among college EFL students. This addresses the different key result areas identified in the present study. Generally, this will contain a variety of resources designed to improve English reading comprehension and language learning in general. Initially, it will be divided into sections or modules addressing the key result areas, but resources may be added to further improve the existing materials and resources. Each section or module will include an introduction, a main content, interactive exercises, downloadable resources, and links to additional resources found in the Internet.

#### 4. Conclusions and recommendations

Utilizing digital devices for reading in the English language serves as a valuable tool for acquiring knowledge, finding relaxation, and nurturing self-sufficient readers. The convenience of accessing information online facilitates the process of learning, offers a source of entertainment and enhances independent reading skills. Majority of the respondents agreed on digital reading behavior with social impact as the highest and convenience as the lowest. Digital academic English reading significantly simplifies the process of information-gathering for daily study needs and broadens the perspectives of students by exposing them to diverse viewpoints and global content. However, there are associated health risks, such as eye strain, headaches, and other issues related to prolonged screen time. The internet ensures that learners are connected to a network of information and ideas, greatly enhancing their learning experience. However, excessive internet usage can be problematic when users lack discipline and self-control. This can lead to distractions, reduced productivity, and even addiction. Attitudes toward reading are relatively uniform across different demographic groups. However, grade level is significant in influencing digital reading behavior, indicating that as students' progress, their engagement with digital reading evolves. The study establishes a clear relationship between reading attitudes and digital reading behavior. Positive attitudes towards reading are likely to enhance engagement with digital reading. Furthermore, there is a significant relationship between digital reading behavior and digital reading use, indicating that students who exhibit proactive digital reading behaviors are more likely to utilize digital resources effectively. The researcher proposed an enhanced reading program for Chinese EFL students.

Teachers may focus on encouraging students to engage in extensive reading to further enhance their reading skills. Teachers should create a supportive and stimulating reading environment in the classroom by providing a diverse range of reading materials that cater to various interests and reading levels. This can include digital books, online articles, e-magazines, and interactive reading apps. Incorporate regular reading sessions into the curriculum where students are encouraged to read extensively on topics of their choice. This could be supported by activities such as book clubs, reading logs, and discussions that allow students to share their insights and recommendations. Use digital platforms to track and celebrate students' reading progress, such as reading challenges or online book reviews, to motivate continuous engagement with reading. Teachers may ensure that students' English proficiency is continuously enhanced through digital reading. Students must also be educated on how to read critically and evaluate the quality of information they encounter. Integrate digital reading activities into the English curriculum that specifically focus on developing critical reading skills. These activities should include tasks like analyzing online articles, evaluating the credibility of digital sources, and comparing different types of digital texts. Provide explicit instruction on how to navigate and critically evaluate digital content. This can include lessons on identifying credible sources, understanding digital literacy, and recognizing bias and misinformation online. Use digital tools to facilitate vocabulary building and comprehension exercises. For example, interactive e-books with built-in dictionaries, annotation features, and comprehension quizzes can help reinforce language learning. More activities may be designed incorporating the practice of digital reading and English language learning. Design classroom activities that blend digital reading with language learning objectives. For instance, use online discussion forums for students to discuss reading assignments, or employ multimedia resources like videos and podcasts to complement reading tasks. Incorporate gamified elements in digital reading tasks to increase engagement and motivation. Platforms that offer reading games, quizzes, and interactive storylines can make the learning process more enjoyable and effective. Provide opportunities for collaborative digital reading projects where students can work in groups to explore and present on various topics, fostering teamwork and communication skills. Future studies may include students with other demographic characteristics to better understand the variables that affect reading attitudes. Ensure that future research includes a diverse sample of students from different geographic regions, socioeconomic backgrounds, and educational levels to provide a more comprehensive understanding of digital reading attitudes and behaviors. Conduct longitudinal studies to track changes in digital reading habits over time and identify long-term trends and impacts. Use mixed-methods research designs that combine quantitative surveys with qualitative interviews or focus groups to gain deeper insights into students' digital reading experiences. Further investigation may be conducted regarding learners' online reading habits and internet usage in relation to their demographic characteristics. Develop detailed surveys and observational studies to examine how different demographic groups engage with online reading materials. This should include factors such as frequency of use, types of digital content accessed, and time spent on digital reading. Analyze the relationship between students' online reading habits and their academic performance, digital literacy skills, and overall attitudes towards reading. Explore the potential impacts of internet usage on students' mental health and well-being, particularly in relation to screen time and exposure to online content. The proposed enhanced reading program may be implemented to improve the English reading abilities of learners. Roll out the enhanced reading program in phases, starting with pilot implementations in selected schools or classrooms. Gather feedback from teachers and students to refine and improve the program. Provide professional development and training for teachers on how to effectively integrate digital reading into their teaching practices. This should include workshops, online courses, and resource materials. Regularly assess the effectiveness of the reading program through student assessments, teacher evaluations, and program reviews. Use this data to make ongoing adjustments and improvements to the program. Foster a community of practice among educators where they can share best practices, challenges, and successes related to digital reading and language learning.

## 5. References

- Aggarwal, R., & Ranganathan, P. (2019). Study designs: Part 2 – Descriptive studies. *Perspectives in Clinical Research*, 10(1), 34. [https://doi.org/10.4103/picr.picr\\_154\\_18](https://doi.org/10.4103/picr.picr_154_18)
- Alcott, L. (2021). Reading on-screen vs reading in print: What's the difference for learning? *Create Readers*.

- <https://natlib.govt.nz/blog/posts/reading-on-screen-vs-reading-in-print-whats-the-difference-for-learning>
- Alsaeedi, Z. S. A., Ngadiran, N. M., Kadir, Z. A., & Al-Rahmi, W. M. (2021). Reading Habits and Attitudes among University Students: A Review. ResearchGate. [https://www.researchgate.net/publication/354712697\\_Reading\\_Habits\\_and\\_Attitudes\\_among\\_University\\_Students\\_A\\_Review](https://www.researchgate.net/publication/354712697_Reading_Habits_and_Attitudes_among_University_Students_A_Review)
- Althewini, A., & Roomy, M. a. A. (2023). The impact of English reading attitude on students' achievement at a health science university. *Review of Education*, 11(2). <https://doi.org/10.1002/rev3.3397>
- Bana, A. (2020). Students' perception of using the internet to develop reading habits. *Journal of English Teaching*, 6(1), 60–70. <https://doi.org/10.33541/jet.v6i1.46>
- Chang, L., Wang, Y., Liu, J., Feng, Y., & Zhang, X. (2023). Study on factors influencing college students' digital academic reading behavior. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1007247>
- Chen, H. (2019). Digital reading habits of college students and countermeasures of university libraries. *Frontiers in Educational Research*, 2(4). <https://doi.org/10.25236/fer.034019>
- Cherry, K. (2023). Correlation studies in psychology research. Verywell Mind. <https://www.verywellmind.com/correlational-research-2795774>
- De Agüero, J. J. S., Castañeda, & Menchaca. (2018). THE PSYCHOLOGICAL EFFECTS OF READING IN THE HUMAN MIND BY ANALYZING a NOVEL AND a SELF-HELP BOOK. ResearchGate. [https://www.researchgate.net/publication/325661773\\_THE\\_PSYCHOLOGICAL\\_EFFECTS\\_OF\\_READING\\_IN\\_THE\\_HUMAN\\_MIND\\_BY\\_ANALYZING\\_A\\_NOVEL\\_AND\\_A\\_SELF-HELP\\_BOOK](https://www.researchgate.net/publication/325661773_THE_PSYCHOLOGICAL_EFFECTS_OF_READING_IN_THE_HUMAN_MIND_BY_ANALYZING_A_NOVEL_AND_A_SELF-HELP_BOOK)
- Guo, Y. (2023). The influence of digital media on teenager's reading habits. In *Advances in social science, education and humanities research* (pp. 374–379). [https://doi.org/10.2991/978-2-38476-068-8\\_47](https://doi.org/10.2991/978-2-38476-068-8_47)
- Haoning Mah, G., Hu, X., & Yang, W. (2020). Digital technology use and early reading abilities among bilingual children in Singapore. <https://eric.ed.gov/?id=EJ1283586>
- Hasan, M. (2023). The Relationship between Reading Attitude and Student Grade Point Average. *Arab World English Journal*, 14(3), 199–209. <https://doi.org/10.24093/awej/vol14no3.13>
- Hidayat, D. N., Lee, J. Y., Mason, J., & Khaerudin, T. (2022). Digital technology supporting English learning among Indonesian university students. *Research and Practice in Technology Enhanced Learning*, 17(1). <https://doi.org/10.1186/s41039-022-00198-8>
- Hooper, V., & Herath, C. (2014). Is Google making us stupid? The impact of the internet on reading behaviour. In *AIS Electronic Library (AISeL)* (p. 1). <https://aisel.aisnet.org/cgi/viewcontent.cgi?article=1044&context=bled2014>
- Jiawook, L. (2021). The effectiveness of digital reading for motivating student reading and vocabulary development [MA Thesis, Malmo Universitet]. <https://www.diva-portal.org/smash/get/diva2:1632855/FULLTEXT02>
- Kamaie, M., & Baharloo, A. (2023). On the Relationship among Digital Literacy, Self-Confidence and English Language Achievement of Iranian EFL Learners. *International Journal of Research Publication and Reviews*, 4(8), 3058–3066. <https://doi.org/10.55248/gengpi.4.823.51083>
- Liu, C., & Luo, X. (2021). Impact of Affective Factors on Senior High School Students with Low English Reading Ability. *English Language Teaching (Toronto)*, 14(12), 91. <https://doi.org/10.5539/elt.v14n12p91>
- Liu, T., Li, Y., Feng, M., Yan, C., & Zhang, T. (2023). Understanding College Students' Engagement in Mobile Reading for Sustainability in Education: A Case Study from China. *Sustainability*, 15(3), 2848. <https://doi.org/10.3390/su15032848>
- Liu, X., Zhang, L., Yu, S., Bai, Z., Qi, T., Mao, H., Zhen, Z., Dong, Q., & Liu, L. (2023). The effects of age and reading experience on the lifespan neurodevelopment for reading comprehension. *Journal of Cognitive Neuroscience*, 1–22. [https://doi.org/10.1162/jocn\\_a\\_02086](https://doi.org/10.1162/jocn_a_02086)
- Melati, Mardiah, R., & Safitri, N. T. (2023). Digital Reading Strategies of Undergraduate English Language Learners. In *Advances in social science, education and humanities research* (pp. 402–409). [https://doi.org/10.2991/978-2-38476-054-1\\_35](https://doi.org/10.2991/978-2-38476-054-1_35)
- Muchtar, N. (2015). Attitude of students in reading comprehension [MA Thesis, Politeknik Negeri Ujung

- Pandang]. <https://ejournal.iainpalopo.ac.id/index.php/ideas/article/download/141/127>
- Niccoli, A. (2015). Paper or tablet? reading recall and comprehension. *EDUCAUSE Review*. <https://er.educause.edu/articles/2015/9/paper-or-tablet-reading-recall-and-comprehension>
- Nisak, S. I. (2023). The correlation between students' reading attitude and their reading comprehension. *Journal of English Teaching, Literature, and Applied Linguistics*, 7(2), 1. <https://doi.org/10.30587/jetlal.v7i2.5945>
- Podbolotova, M., Dmitrieva, V., Reznikova, R., Grishaeva, Y., & Tkacheva, A. Z. (2021). Digital socialization of students by means of educational media. *SHS Web of Conferences*, 98, 05015. <https://doi.org/10.1051/shsconf/20219805015>
- Ponto, J. (2015, April 1). Understanding and evaluating survey research. PubMed Central (PMC). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4601897/>
- Rafi, M. F., Islam, A. F., & Cahyani, D. A. (2021). THE RELATIONSHIP BETWEEN STUDENTS' READING ATTITUDE WITH THE RESULT OF READING COMPREHENSION. *Journal of Languages and Language Teaching*, 9(4), 512. <https://doi.org/10.33394/jollt.v9i4.4008>
- Raj, N. (2023). Future of digital reading. *TheDailyGuardian*. <https://theguardian.com/future-of-digital-reading/>
- Septianingsi, P., & Atmanegara, Y. (2021). The influence of English reading attitude on students' reading comprehension. *Didascien*, 2(2), 116. <https://doi.org/10.52333/d.v2i2.838>
- Singh, S. (2024, January 8). What is Descriptive Research? Definition, Methods, Types and Examples | Researcher.Life. <https://researcher.life/blog/article/what-is-descriptive-research-definition-methods-types-and-examples/>
- Stiegler-Balfour, J. J., Roberts, Z. S., LaChance, A. S., Sahouria, A. M., & Newborough, E. D. (2023). Is reading under print and digital conditions really equivalent? Differences in reading and recall of expository text for higher and lower ability comprehenders. *International Journal of Human-computer Studies*, 176, 103036. <https://doi.org/10.1016/j.ijhcs.2023.103036>
- Thomala, L. L. (2023, May 15). Digital reading method penetration rate in China 2009-2022. Statista. <https://www.statista.com/statistics/864785/digital-reading-method-penetration-rate-in-china/>
- Tian, X., Samat, N. A., & Zainal, Z. (2022). Chinese EFL Learners' Attitudes towards Smartphone-Based Reading. *Theory and Practice in Language Studies*, 12(9), 1838–1847. <https://doi.org/10.17507/tppls.1209.17>
- Tiwary, N., Subramani, S., G. M., & Dhandayuthapani, S. (2024). Electronic resources literacy and e-reading behaviour among nursing students. *Global Knowledge, Memory and Communication*. <https://doi.org/10.1108/gkmc-04-2023-0146>
- Vijayamohan, P. (2023, November 11). 9 Types of survey methods and how they work. SurveySparrow. <https://surveysparrow.com/blog/different-types-of-survey-methods/>
- Ward, M. (2024, April 2). Here's what you need to know about students' digital reading habits. District Administration. <https://districtadministration.com/heres-what-you-need-to-know-about-students-digital-reading-habits/>
- Wood, B. J. (2022, January 11). The benefits and challenges of reading online – a student perspective. Making Digital History. <https://makingdigitalhistory.co.uk/2022/01/11/the-benefits-and-challenges-of-reading-online-a-student-perspective/>
- Xu, L. (2019). Reading marks new chapter in internet age - Chinadaily.com.cn. <http://epaper.chinadaily.com.cn/a/202105/21/WS60a6f681a31099a234356447.html>
- Yusof, D. (2021). Reading Habits among students in the Digital Era: Changes of trends and behaviours. *Journal of Academic Library Management*, 1(1), 43–54. [https://www.researchgate.net/publication/353238352\\_Reading\\_Habits\\_Among\\_Students\\_in\\_the\\_Digital\\_Era\\_Changes\\_of\\_Trends\\_and\\_Behaviours](https://www.researchgate.net/publication/353238352_Reading_Habits_Among_Students_in_the_Digital_Era_Changes_of_Trends_and_Behaviours)
- Zhou, Y. (2022). Reading Behavior of Chinese primary and secondary school students: a systematic review. *Science Insights Education Frontiers*, 13(2), 1923–1937. <https://doi.org/10.15354/sief.22.re077>