

# **THE IMPACT OF ICT ON READING HABITS AMONG FIRST YEAR PISMP TESL PRE-SERVICE TEACHERS : A SURVEY**

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## **Abstract**

*The rapid development of information and communication technology (ICT) in education has greatly influenced pre-service teacher's reading habits, particularly in higher education settings. This study investigates the impact of ICT on the reading habits of first-year PISMP TESL pre-service teachers. By examining the frequency and types of reading materials accessed, as well as preferences for digital versus print resources, this survey provides insights into how ICT affects reading behaviours. Data was collected using a structured questionnaire administered via Google Forms to 113 first-year pre-service teachers. The findings reveal a significant preference for digital reading materials, which has led to reduced reading times, shorter attention spans, and decreased comprehension and retention. Additionally, the study identifies gender and social background disparities among the respondents, with a notable majority of female pre-service teachers. The results highlights the necessity for integrating digital literacy into teacher education programmes to foster effective reading habits. This research offers valuable information for educators and policymakers the incorporation of ICT in higher education and promote balanced reading practices among pre-service teachers.*

**Keywords:** ICT, reading habits, pre-service teachers, digital resources, teacher education

## Abstrak

*Kajian ini meneliti kesan ICT terhadap tabiat membaca dalam kalangan guru pelatih TESL tahun pertama di sebuah kampus Institut Pendidikan Guru. Untuk mencapai objektif kajian, data dikumpulkan melalui soal selidik dalam talian yang dimuat naik ke Google Form. Soal selidik tersebut bertujuan mengumpulkan data kuantitatif berkaitan tujuan membaca, pilihan sumber maklumat, persepsi terhadap sumber bercetak dan digital, serta kesan ICT terhadap tabiat membaca. Peserta kajian ini terdiri daripada 113 guru pelatih TESL di sebuah kampus Institut Pendidikan Guru. Data yang dikumpulkan dianalisis secara deskriptif menggunakan Microsoft Excel. Dapatan kajian menunjukkan bahawa kebanyakan guru pelatih membaca sebagai hobi, manakala sebahagian lagi membaca untuk memperkayakan perbendaharaan kata, meningkatkan prestasi dalam pelajaran, atau membuat persediaan untuk peperiksaan. Selain itu, majoriti peserta lebih gemar membaca buku rekreasi berbanding sumber akademik seperti jurnal dan surat khabar, yang menekankan keperluan untuk menggalakkan keseimbangan antara bacaan rekreasi dan bacaan. Persepsi terhadap sumber bercetak dan digital menunjukkan keutamaan yang ketara terhadap e-buku, di mana ramai yang percaya e-buku menawarkan maklumat yang lebih terkini berbanding buku bercetak, yang dianggap mahal, kurang tahan lama, dan memerlukan ruang penyimpanan yang besar. Tambahan pula, ICT memberikan kesan positif terhadap tabiat membaca dan menekankan kepentingan mengintegrasikan literasi digital ke dalam program pendidikan guru untuk memupuk tabiat membaca yang berkesan serta menyediakan bakal pendidik untuk mengakses dan menggunakan kandungan digital dengan cekap.*

**Kata kunci:** *ICT, tabiat membaca, guru pra-perkhidmatan, sumber digital, pendidikan guru*

## INTRODUCTION

Throughout the past few decades, the adoption of information and communication technology (ICT) in education has advanced very quickly. ICT has thus had a big impact on students' reading habits, especially in higher education settings. Recent investigations points out that ICT has significantly impacted pre-service teachers' reading habits (Norazah Nordin et al., 2019).

Consequently, the goal of this survey is to ascertain how ICT has affects the reading habits of the first-year PISMP TESL pre-service teachers at an Institute of Teacher Education (ITE) campus. The survey will study several elements such as the frequency and types of reading materials accessed by pre-service teachers, the impact of ICT on reading habits and the pre-service teachers' preferences for reading resources in digital or paper format.

The results of this study can help educators and policymakers understand the best ways to incorporate ICT into higher education and encourage pre-service teachers to develop good reading habits

## **BACKGROUND OF THE STUDY**

The purpose of this study is to look into how (ICT) affects the reading habits of the August 2022-July 2027 intake of pre-service teachers. The first year PISMP TESL pre-service teachers at an Institute of Teacher Education (ITE) campus will be the subject of the study. The researcher is interested to know about the materials that they download and how their reading habits change as a result of doing their material browsing on the digital devices.

## **STATEMENT OF THE PROBLEM**

The use of digital devices among Malaysian pre-service teachers has decreased the reading time, (Norazah Nordin et al.,2019). According to the survey, pre-service teachers read digital resources for 1.5 hours on average per day as opposed to reading print materials for 2 hours. The ability to access digital reading materials has reduced pre-service teachers' reading attention spans and caused distractions. Moreover, this has contributed to poor comprehension and retention.

Thus, the use of ICT has influenced Malaysian pre-service teachers' poor reading habits (Norazah Nordin et al., 2019). The excessive reliance on digital reading materials has decreased reading time, and superficial learning habits. Hence, it is crucial to conduct this study in order to determine the impact of ICT on the reading habits of the first year PISMP TESL pre- service teachers at an Institute of Teacher Education (ITE) campus.

## **RESEARCH PURPOSE**

The purpose this research is to investigate the impact of ICT on the reading habits of the first year PISMP TESL pre-service teachers at an Institute of Teacher Education (ITE) campus. The sample for this study is the first year pre-service teachers, namely the August 2022 - July 2027 intake. Data is collected using a set of questionnaire and administered via Google Form.

## **RESEARCH OBJECTIVE**

The objectives of this study are:

- i. To find out the purpose of reading among the first year PISMP TESL pre-service teachers.
- ii. To examine the type of information source preferred by the first year PISMP TESL pre-service teachers.
- iii. To discover the perception of the first year PISMP TESL pre-service teachers on print versus digital resources.
- iv. To determine the impact of ICT on the reading habits of the first year PISMP TESL pre-service teachers.

## **RESEARCH QUESTION**

The research questions of the study are:

- i. What is the purpose of reading among the first year PISMP TESL pre-service teachers ?
- ii. Which type of information source does the first year PISMP TESL pre-service teachers prefer?
- iii. What is the perception of the first year PISMP TESL pre-service teachers on print versus digital resources?
- iv. What is the impact of ICT on the reading habits of the first year PISMP TESL pre-service teachers?

## **LIMITATION**

The study is limited to the Institute of Teacher Education, at an Institute of Teacher Education (ITE) campus. More specifically, it investigates the Impact of ICT on first-year PISMP TESL pre-service teachers' Reading Habits. The data in the present study was collected

from the August 2022 – July 2027 intake who are in their first year of a 4 year programme. The results of this study is limited to this population.

### **SIGNIFICANCE OF THE RESEARCH**

The findings of this study may provide insights to the curriculum planners, teacher trainers, pre-service teachers on the impact of reading habits of the PISMP TESL pre- service teachers particularly in the context of Institute of Teacher Education. Results from this study might help the teacher educators and curriculum planners to better understand the types of preferred source of information, the purpose for reading books and also the impact of ICT on reading among the first year PISMP TESL pre- service teachers.

### **LITERATURE REVIEW**

Reading constitutes a fundamental competency that is essential for all individuals. Engaging with texts affords learners a significant opportunity to access pathways to success. With the the emergence of digital media and the widespread availability of electronics resources, the practice of reading has undergone substantial transformation.

Navigating this evolving landscape represents an imperative skill for students to develop. (Fatoro et al., 2017). Progress in technology has gradually replaced many human activities. In the modern digital age, especially 21<sup>st</sup> century, people seldom visit libraries to obtain and interact with physical materials.

Balan et al., (2019) highlighted Poedjiastutie's (2018) findings that Sounteast Asian countries are struggling to motivate their students to read. In response these governments are trying to enhance students' reading abilities by supporting and promoting libraries. The 1982 National Literacy Survey by the National Library (cited in Shameem Ahmad ,2016) found that Malaysians typically read only one to two pages annually. One reason for the persistent lack of reading habits and engagement is the inability of Malaysian educational institutions to cultivate a sustained interest in reading among students (Mohamed et al., 2012).

A habit is characterized by its repetitive nature, often occurring without conscious thought. The inclination to read is optimally cultivated during the formative years, particularly within educational institutions such as schools, colleges, and universities; however, once established, this habit can endure throughout one's lifetime. The proclivity for reading is arguably one of the most advantageous habits that children ought to develop. The practice of frequenting libraries from an early age becomes an integral component of life as one matures. The establishment of a library culture from the outset can foster greater curiosity among postgraduate students regarding the phenomena and events that characterize human existence. Thus, it is imperative to promote library culture among students, pre-service teachers, undergraduates and post-graduates, too.

The integration of Information and Communication Technology (ICT) in education has been widely researched in recent years. One area of particular interest is the impact of ICT on reading habits among students. This literature review aims to explore and synthesize previous studies on the topic, specifically among pre-service teachers. Impact of ICT on Reading Habits can be seen in the emergence of digital technology which has drastically transformed the way individuals engage with reading material. With the rise of digital devices and online resources, traditional reading habits have been challenged (Mizrachi, 2015). However, studies have suggested that ICT has both positive and negative impacts on reading habits (Hsieh & Wu, 2018). As such the positive impact of ICT has been found to promote the development of reading habits, particularly in terms of convenience and accessibility. Digital devices and online resources provide users with instant access to vast amounts of information, making it easier for students to engage with reading material (Akhter & Waseem, 2016). ICT can also facilitate active reading practices, such as highlighting, note-taking, and searching for definitions, which can enhance reading comprehension and memory (Hsieh & Wu, 2018). On the other hand, the use of ICT has also been linked to negative effects on reading habits. For instance, the prevalence of digital distractions, such as social media and entertainment, can decrease the amount of time students spend on reading material (Mizrachi, 2015). Furthermore, research suggests that reading from digital devices can negatively affect reading comprehension and recall, as well as increase cognitive load (Mangen et al., 2013).

## **CONCEPTUAL FRAMEWORK**

The conceptual framework for this study will be based on the Technology Acceptance Model (TAM) proposed by Davis (1989). TAM is a widely used theoretical framework for understanding the acceptance and adoption of technology.

The model posits that two key factors, perceived usefulness and perceived ease of use, significantly influence an individual's attitude towards using technology. Perceived usefulness refers to the extent to which an individual believes that the technology will enhance their performance or achieve their goals, while perceived ease of use refers to the degree to which an individual believes that the technology is easy to use.

In the context of this study, the perceived usefulness and perceived ease of use of ICT will be the key factors influencing the reading habits of first-year PISMP TESL pre- service teachers of an Institute of Teacher Education (ITE) campus.

As such this study will investigate the extent to which the students perceive ICT to be useful for their reading habits and whether they find it easy to use. The study will also consider other factors such as gender, locality, purpose for reading, preferred source of information, which may impact their attitudes towards ICT and reading habits.

## **RESEARCH DESIGN**

The survey method and questionnaire instrument were selected for this study because they make it easy to gather information. When there are insufficient time, labour, or money, the survey approach is among the best alternatives. The survey approach is suitable for a higher learning setting as it is practical, inexpensive, and effectively represents a big population. The use of a questionnaire as a tool was chosen since it allows for the quick and efficient collection of a fair amount of data and information. The survey was created using a straightforward, organised form that made it easy for respondents to read, comprehend, and respond.

## **SAMPLING METHOD**

The sample of this study was determined by convenience sampling method among the first year PISMP TESL pre-service teachers who were students at the Language Department in an Institute of Teacher Education in Penang, Malaysia. The sample included 113 PISMP TESL pre-service teachers from five TESL classes, namely TESL 1, TESL 2, TESL 3, TESL 4 and TESL 5 from the August 2022 – July 2027 intake.

## **RESEARCH INSTRUMENT**

An online survey using Google form was distributed to 113 PISMP TESL pre-service teachers. The survey included 5 parts with 24 closed-ended questions. The close-ended questions were deployed in the form of 5-point Likert scale statements ranging from strongly disagree (1) to strongly agree (5). The statements cover different aspects related to ICT and reading habits. To examine the questionnaire's reliability, it was tested using Cronbach's Alpha Test. The overall Cronbach Alpha Coefficient of the questionnaire is ( $r=.85$ ), which indicates a high degree of internal consistency. The data gathered using this questionnaire was then analysed using Microsoft Excel.

## **DATA ANALYSIS**

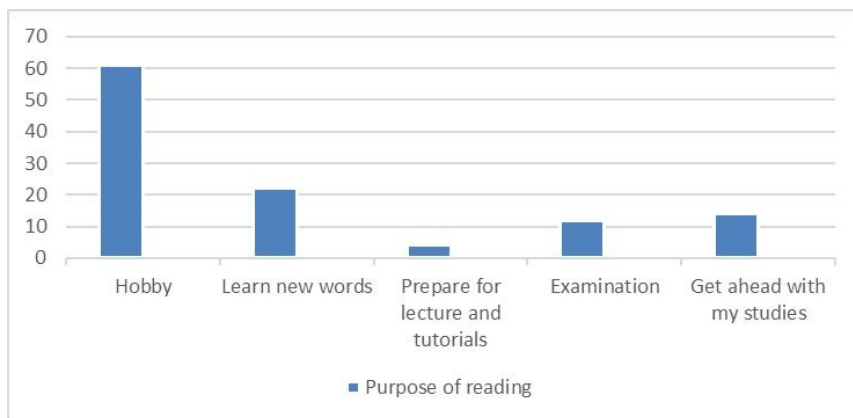
The data analysis will be carried out using the Microsoft Excel to come up with frequency and a simple percentage approaches to examine the data gathered for this study.

**Table 1**  
*Demographic*

Demographic Information	Percentage
Gender	
Male	15.9
Female	84.1
Social background	
Urban	37.2
Sub-urban	38.0
Rural	24.8

The information encapsulated in Table 1 delineates the demographic characteristics of the participants in the study. It is noteworthy to observe that a significant majority of the student population comprises females (84.1%), surpassing their male counterparts (15.9%). Furthermore, the table illustrates that 38.0% of the participants originate from the sub-urban areas, while 37.2% are from the urban environments and a mere 24.8% hail from the rural locale.

**Figure 1**  
*Purpose of Reading*



It is evident from Figure 1 that most (54.0%) pre-service teachers read for the sole purpose of hobby, while 19.0% of them read to acquire new words . There is also a sizeable number of pre-service teachers

who read to get ahead of their studies and this makes 12.0% of the total number. Another purpose of reading based on the response of the pre-service teachers is to read the purpose of examination (11.0%) and the smallest number of pre-service teachers which is 4.0% devote their time to read for the purpose of examination.

**Figure 2**  
*Preferred Source of information*

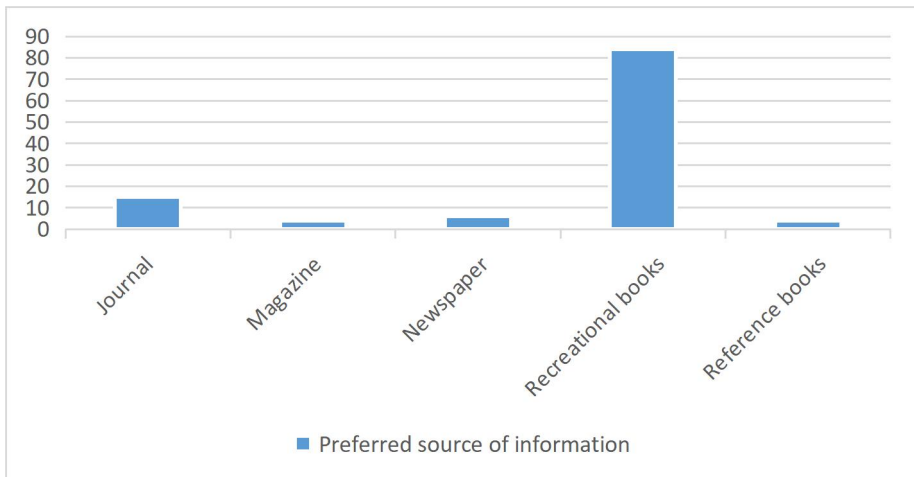


Figure 2 presents the preferred source of information for the pre-service teachers. A big number of the pre-service teachers preferred to read recreational books (74.0%), journal (13.0%), newspapers (5.0%), while very small number of pre-service teachers are drawn to read reference books and magazines at 4.0% respectively.

**Figure 3**  
*Comparison of Print Book and Internet Sources*

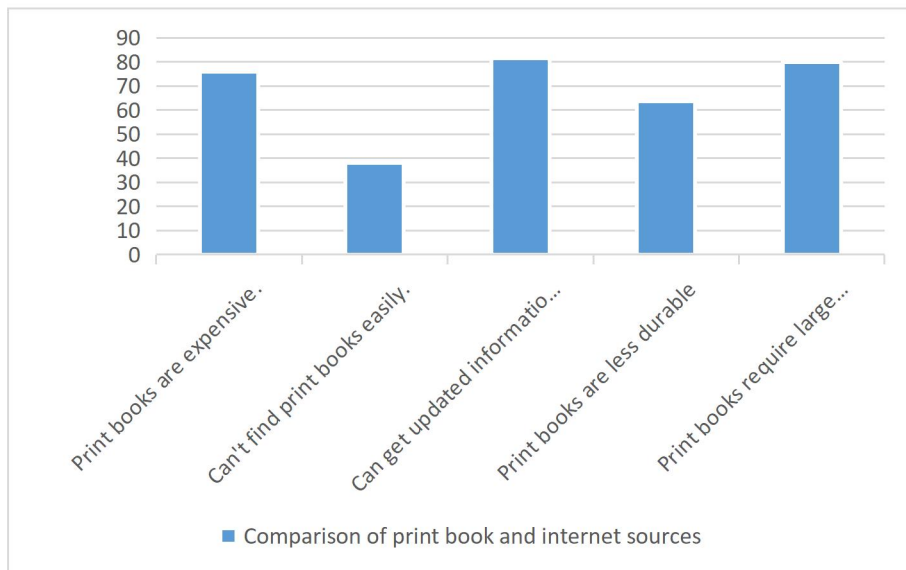
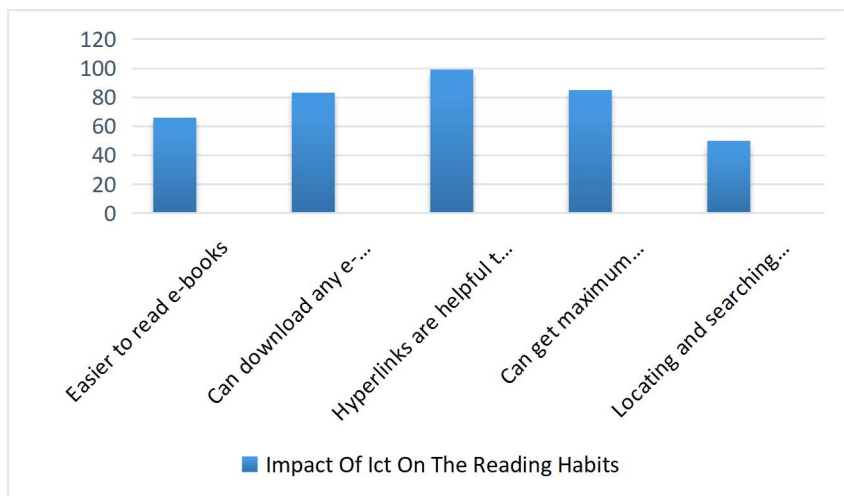


Figure 3 illustrates that the 76% of pre-service teachers are in agreement that print books are expensive compared to Internet sources, a small number of them are of the opinion that they can't find print books easily (38%). This is followed by a strong 81.4% of pre-service teachers who believes they can get updated information from e-books compared to print. Further 63.7% of the pre-service teachers perceive that print books are less durable and finally a sizeable number of pre-service teachers 80% of them believes that a large space is required to store print books.

**Figure 4**  
*Impact of ICT on the Reading Habits*



In Figure 4, we can comprehend that the impact of ICT on the first year TESL pre-service teachers is positive. Sixty-six percent of the pre-service teachers indicated that it is easier to read e-books. Eighty-three percent of them also established that they find easy to download any e-books from the web. In fact 99.0% of the pre-service teachers found that hyperlinks are very helpful to access information.

Additionally, 85.0% of them strongly claimed that they can get maximum information from the internet and to further display the impact, 50.0% of the teachers opined that they can locate and search for books very easily.

## Discussion

The current investigation examined the impact of ICT on the reading habits of first-year TESL pre-service teachers at an Institute of Teacher Education campus. The study resulted in numerous intriguing findings on the preferred locations for reading books as well as the motivations for engaging in reading activities.

## Purpose of Reading

Figure 1 reveals that most pre-service teachers read as a hobby (54.0%), with a smaller percentage reading to acquire new words (19.0%), get ahead in their studies (12.0%), or prepare for exams (11.0%). This diverse range of motivations aligns with the findings of previous studies that highlight the multifaceted nature of reading purposes among students (Alexander & Jetton, 2019). However, a low percentage of pre-service teachers reading for academic purposes suggests a need for strategies a need for strategies to integrate more academic reading into their routines.

## Preferred Sources of information

As shown in Figure 2, the vast majority of pre-service teachers prefer recreational books (74.0%) over academic sources like journals (13.0%) and newspapers (5.0%). This preference for recreational reading is uncommon among students (Krashen, 2004); however, it raises concerns about the pre-service teachers' engagement with academic works, which is vital for their professional development. Therefore, encouraging a balance between recreational and academic reading could enhance their overall literacy and knowledge base.

## Perception of Print vs. Digital Resources

Based on Figure 3 which illustrates a significant number of pre-service teachers perceive print books as expensive (76.0%), less durable (63.0%), and requiring large storage space (80.0%). Conversely, a strong majority (81.4%) believe that they can obtain more up-to-date information from e-books. This perception is consistent with the shift towards digital resources in educational settings, driven by factors such as cost-effectiveness and accessibility (Barccarella, Wagner & Kietzmann, 2018). These findings underscore the importance of integrating digital literacy into teacher education programmes.

## Impact of ICT on Reading Habits

In Figure 4, a positive impact of ICT on the reading habits of pre-service teachers is displayed, where a large majority find it easier to read (66%) and download (83%) e-books. Almost all respondents (99.0%) appreciate the usefulness of hyperlinks for accessing information, and 85.0% find that the internet provides maximum information. This strong preference for digital resources highlights the

necessity for the teacher education programmes to incorporate ICT skills, preparing future educators to navigate and utilize digital content effectively (Anderson, 2020).

## **Conclusion**

This investigation has provided valuable insights into the impact of ICT on the reading habits of the first-year PISMP TESL pre-service teachers at an Institute of Teacher Education campus. The findings reveal significant trends in reading purposes, preferred sources of information, perceptions of print versus digital resources and the impact of ICT on reading habits.

A diverse range of motivations for reading was identified, with the majority of pre-service teachers reading as a hobby (50.4%). The findings align with previous studies that emphasize the multifaceted nature of reading purposes among students (Alexander & Jetton, 2019). However, the relatively low percentage of pre-service teachers reading for academic purpose highlights the need for strategies to integrate more academic reading into their routines.

In terms of preferred sources of information, a vast majority of pre-service teachers favour recreational books (70.4%) over academic materials such as journals and newspapers. This trend, while not uncommon (Krashen, 2004) raises concerns about their engagement with academic works, which is critical for their professional development. Encouraging a balance between recreational and academic reading could enhance their overall literacy and knowledge base.

The study also uncovered significant perceptions regarding print and digital resources. Many pre-service teachers view print books as expensive, less durable, and requiring large storage space, while a strong majority believe e-books provide more up-to-date information. This shift towards digital resources is consistent with contemporary trends in educational settings driven by factors such as cost-effectiveness and accessibility (Barccarella, Wagner & Kietzmann, 2018). These findings underscore the importance of integrating digital literacy into teacher education programme.

Finally, the positive impact of ICT on the reading habits of pre-service teachers is evident, with many finding it easier to read and download e-books and appreciating the usefulness of hyperlinks for accessing information. This strong preferences for digital resources highlights the necessity for teacher education programmes to incorporate ICT skills, preparing future educators to navigate and utilize digital content effectively (Anderson, 2020). Future research should focus on developing strategies to enhance academic reading habits and further integrating digital literacy into teacher education programmes.

## REFERENCES

- Alexander, P. A., & Jetton, T. L. (2019). Theoretical models and processes of reading. *International Reading Association*.
- Al-Azawei, A., Alshahrani, A., & Al-Saggaf, Y. (2021). The impact of digital reading platforms on enhancing university students' reading habits and experiences: Evidence from Saudi Arabia. *Journal of Educational Technology & Society*, 24(1), 228-238.
- Anderson, T. (2020). *The Theory and practice of online learning*. Athabasca University Press.
- Aini, M. F. M., & Hashim, A. H. (2021). Reading culture among pre-service teachers in Malaysia. *International Journal of Asian Social Science*, 11(4), 196-204.
- Akhter, N., & Waseem, M. (2016). A study on the impact of technology on reading habits of college students. *The International Journal of Indian Psychology*, 3(3), 27- 34.
- Balan, S., Katenga, J. E., & Simon. A. (2019). Reading habits and their influence on academic achievement among students at Asia Pacific International University, Thailand. *Abstract Proceedings International Scholars*.  
<https://doi.org/10.35974/isc.v7i1.928>
- Barccarella, C. V., Wagner, T. F., & Kietzmann, J. (2018). Digital transformation in education: The Role of digital learning technologies. *Journal of Business Research*, 85,327-336.
- Bumgardner, M. A., & Kim, Y. J. (2020). Digital reading: A review of research on comprehension, learning and technology. *Journal of Literacy Research*, 52(1), 73-101.  
<https://doi.org/10.1177/1086296X19898683>

- Chen, C. M., Wang, Q., & Wang, Y. C. (2019). Enhancing reading motivation and engagement through digital reading. *Computers & Education*, 141, 103617. <https://doi.org/10.1016/j.compedu.2019.103617>
- Chen, Y.-H., Chen, H.-F., & Lai, C.-H. (2018). The effect of college students' social network sites use on reading frequency and academic performance. *International Journal of Mobile Learning and Organisation*, 12(1), 22-37. <https://doi.org/10.1504/IJMLO.2018.089725>
- De Haan, J., & Huysmans, F. (2013). E-books and reading habits: Results of a survey among Dutch students. *Journal of the American Society for Information Science and Technology*, 64(12), 2517-2524. <https://doi.org/10.1002/asi.22942>
- DeVellis, R. F. (2012). Scale development: *Theory and applications* (3rd ed.). Sage Publications.
- Fatoloro, O. F., Oyekola, A. A., Hameed, B.A., & Oseni, M.A. (2017). A Survey on the Reading Among Colleges of Education Students in the Information Age. *Journal of Education and Practice*. <http://eric.ed.gov/?=EJ1139158>
- Guthrie, J. T., & Wigfield, A. (2020). Engagement and motivation in reading. In *Handbook of Reading Research* (Vol. 4, pp. 75-95).
- Hsieh, P.Y., & Wu, H. Y. (2018). The Impact of ICT on reading habits: A meta-analysis. *Computers in Human Behaviour*, 88, 88-102. <https://doi.org/10.1016/j.chb.2018.05.023>
- Johnson, L., & Lampley, J. (2018). *A demographic study of teacher candidates*. *Teacher Education Quarterly*, 45(2), 45-63.
- Krashen, S. (2004). *The Power of reading: Insights from the research*. Heinemann.
- Li, Y., Li, M., & Li, X. (2019). The impact of mobile reading on reading comprehension: A meta-analysis. *Journal of Educational Computing Research*, 57(7), 1668-1687. <https://doi.org/10.1177/0735633119838659>
- Mangen, A., Walgermo, B. R., & Brønnick, K. (2013). Reading linear texts on paper versus computer screen: Effects on reading comprehension. *International Journal of Educational Research*, 58, 61-68. <https://doi.org/10.1016/j.ijer.2012.12.002>
- Mizrachi, D. (2015). Undergraduate's academic reading format preferences and behaviors. *The Journal of Academic Librarianship*, 41(3), 301-311.

- <https://doi.org/10/1016/j.acalib.2015.03.009>
- Mohamed, M., Rahman, R. A., Chew, T. L., Hashim, H., Maarof, H., Mat Nasir, N. S., Nordin, N., Razak, N. A., & Mahamod, Z. (2019). The effects of digital reading on reading habits and attitudes among Malaysian pre-service teachers. *Education and Information Technologies*, 24(1), 467-484. <https://doi.org/10.1007/s10639-018-9785-7>
- Shameem Ahmad (2016). Reading Habits and Attitudes of UMSKAL Undergraduates. *International Journal of Applied Linguistics and English Literature*, 5(2), 189-201. <https://doi.org/10.7575/aiac.ijalel.v.5n.2p189>
- Sullivan, A. (2019). Gender differences in teacher education: Implications for practice and policy. *Journal of Education Policy*, 34(3), 123-136.
- Zailani, S. N., Mohamed Esivan, S. M., & Jumari, N. F. (2012). Reading behaviours of students in Kolej Datin Seri Endon (KSDE). *International Journal of Educational Management*. <http://doi.org/10.1108/09513541211227782>