

Investigating Students' Perceptions of Digital vs. Print Reading Materials

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ABSTRACT

In this study, students' perceptions regarding their preference for digital or printed reading materials were analyzed using a quantitative approach. The research design employed was a survey with a descriptive design. This design aimed to collect opinions and preferences from students regarding their reading habits and experiences with both digital and print materials. A questionnaire was used to gather data from 103 students in grade 12 (science, social science, and language studies) at SMAN 10 Malang. The study showed that most students liked both printed and digital materials, but slightly preferred digital ones. They enjoyed reading digitally more than on paper because it was easier and convenient, though they felt equally comfortable with both. Students liked the appealing design of both, but digital content intrigued them more. They understood that both were important for learning English, but they favored digital materials for being up-to-date. However, they found it easier to take notes with printed materials. The study found that most students liked both digital and printed materials, but they slightly favored digital ones. The mean score for digital reading materials was 3.92, while for printed materials, it was 3.68. Overall, they did not find either format too difficult, finding digital materials quick to access but feeling neutral towards printed ones. Although students recognized the benefits of digital resources, their preference for learning from digital materials over print was neutral.

Key words: Students' Perception; Reading Materials; EFL

INTRODUCTION

Digital technology has improved tremendously in the 21st century, drastically changing the educational environment. Technology in the classroom is no longer seen as an addition. These days, no present classroom would be complete without it. There have been major changes in how learners get access to reading materials due to the spread of electronic devices and the expansion of the internet. Reading has always been a primary focus of English as a Foreign Language instruction due to its significant importance. Ningsih et al. (2019) suggest that learning to read early helps students develop important skills they will need to succeed in the future. The role of learning media (educational materials) is closely related to reading activities. Effective learning materials can increase students' interest and participation in

reading, leading to better understanding of the learning material. According to Maharani et al. (2023) learning material and facilities need to be repaired or replaced, and student motivation has to be increased. More learning media use, better learning facilities, and more student desire to study are all essential for increasing interest and improving learning results. Nishanthi (2020) also notes that in many developing countries, students mainly have access to school textbooks, which are often limited. Additional materials to support learning are rarely available. Therefore, it's necessary to gather students' preferences regarding reading materials they enjoy, in order to provide a diverse range of reading materials that will help improve their reading skills. Students of this era have to deal with a variety of reading formats, ranging from traditional printed books to electronic books (e-books), PDFs, and online articles. There are two types of reading materials used for teaching and reading in this era. First are printed materials, or what can be called hardcopies. Second, digital materials or softcopies.

This transformation in the way students read reflects broader changes in society, driven by technological advances and the availability of digital devices. Teaching that once used conventional materials, such as printed materials, is now also seeing more and more educators innovating to include digital approaches. Giebelhausen (2016) stated that paperless classrooms have become the norm in many countries as a result of students' increasing reliance on digital reading resources. The way students read and learn has evolved with the rise of digital technology, leading to a shift in their preferences between digital and print reading materials.

However, with the arrival of digital technology, a new way of reading has surfaced, leading to a debate about which is better: digital or print reading materials. This comparison is not just about the format in which content is presented but also encompasses various aspects like accessibility, environmental impact, and the overall reading experience, as in the findings of Ambarwati et al. (2021), a large percentage of learners see reading digital texts as an enjoyable part of their daily lives. They have no problem using digital reading materials for study or reading. Since they can access information from any location using their mobile phones, students believe they obtain a wealth of learning opportunities. Digital text reading is also considered an effective educational instrument among students. However, it is in contrast to the study conducted by Kharisma et al. (2021). In their studies, most students choose printed books over digital ones because of all the advantages that printed books provide. Students understand more about what they read and focus more on reading, and printed reading makes students' eyes more comfortable than digital reading. This article, therefore, aims to analyze students' perceptions whether they prefer reading digital materials (e-books, online articles) or printed materials (physical books, printed articles).

LITERATURE REVIEW

Previous Related Study

The first previous titled "STUDENTS' PREFERENCE OF DIGITAL OR PRINT BOOKS/READING MATERIALS" by Kharisma et al. (2021), used a survey method to investigate the reading preferences of 7th-grade students in a junior high school in Lumajang. The findings revealed that the majority of these students favour printed reading materials over digital ones. According to the study, most 7th-grade students prefer printed books due to the benefits they offer, such as better understanding of the content, increased focus on reading, and greater comfort for the eyes compared to digital reading.

Similar to the first study, the second study titled "THE PRINTED BOOK AND ELECTRONIC BOOK (EBOOK) EXPERIENCES OF DIGITAL NATIVES IN INDONESIA" by Srirahayu & Premananto (2020) aims to fully comprehend the use of printed books versus digital books. This qualitative research employs a phenomenological approach and involves 26 digital natives in Indonesia who have read at least two printed books instead of digital ones for a month. The study reveals that, according to the researchers who are themselves digital natives and have experienced using printed books, there is a distinctive quality to printed books. This includes the tangible sensation of holding a physical book, feeling the texture of the paper (which varies among publishers), and enjoying the unique scent of the book when flipping through its pages – aspects that cannot be replicated by digital technology.

Digital Reading Materials

According to Pardede (2019) any text that can be read digitally includes web pages, messages on cell phones, online posts like blogs, and texts stored in electronic formats such as those accessible through screen readers, handheld devices, or computers. These are created digitally and include several media formats, including text, audio, video, images, and hypertext. They provide a unique reading experience in comparison to conventional printed materials from virtue of their lively and appealing quality. As a result of incorporating a variety of media, these texts afford readers multiple methods for experiencing the material.

Manalu (2019) also points out that digital texts look different than printed texts. They have unique styles, colors, fonts, and other features that make people more interested in reading them. The way you can change how these texts look helps more people enjoy reading them. It makes the content easier to get into and keeps readers interested. The fact that you can change things like the size and style of the text is a big plus of digital texts over traditional books or papers.

Building on this idea, Pardede (2019) explains that digital texts are always changing, unlike printed texts which stay the same. You can change how digital text looks on a webpage, like its shape, size, or color. This is good because readers can change the text to what they like, such as making the font bigger. But, making the

text bigger means you see less of it at one time, which can make it hard to understand how different parts connect. Still, being able to change digital texts to suit different needs and preferences is a really helpful feature, making reading more personal and fitting for everyone.

Printed Reading Materials

Printed reading materials refer to any text or graphic produced on paper or similar substrates through various printing processes. Historically, this category encompassed a wide range of items, including books, academic journals etc. Mayembe & Nsabata (2020) stated that printed learning materials refer to physical books and educational resources created and published specifically for students' use in their learning, and these materials are typically required by both central and local governments.

As a teaching tool, textbooks have long been used in classrooms. Typically written for a certain level of school, age range, and field of study, textbooks serve as essential learning resources and are aimed at particular target groups (Ivić, 2019). Printed reading materials or textbooks is one of ways for students to learn better. There are ways for engaging textbooks or printed reading materials.

According to Pardede (2019) reading printed materials may be done in two practical ways: scanning and linear reading, sometimes called deep reading. Reading in a straight line requires concentration and emotion. Because of this, the interactive reading paradigm is used on it. The correct position for readers is to begin at the upper left corner and work their way vertically down to the lower right corner. Dictionaries and encyclopedias are examples of scannable printed products that enable users to swiftly locate the information they want by skimming over pages.

METHOD

Design and Samples

The study used a quantitative approach and took place in Sawojajar, Kedungkandang, Malang City. The respondents of this study were a total of 103 12th grade students of SMAN 10 Malang. The researcher analyzed four classes: one in science, two in social studies, and one in language studies.

Instrument and Procedure

The researcher utilized a survey method, employing a closed-ended questionnaire adapted from Manalu (2019) to investigate individuals' reading preferences, specifically regarding digital versus printed materials. Purposive sampling was

employed, selecting four classes from the total 12th-grade population at SMAN 10 Malang. Data collection was conducted using a Google Form link. Subsequently, the gathered data were analyzed using SPSS version 26, and conclusions were drawn based on the compiled report.

Data Analysis

The researcher utilized descriptive statistics to analyze the data and generated summaries of all the data using SPSS version 26. Additionally, the researcher used a 5-point Likert scale to assess the data, which goes as follows: 1) strongly disagree, 2) disagree, 3) neutral, 4) agree, and 5) strongly agree.

RESULT AND DISCUSSION

Reading Digital Materials

Table 1
Reading Digital Materials

No	Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
1	I enjoy reading digital material such as e-books, pdfs, and online article	0 (0)	6 (5.8)	36 (35.0)	40 (38.8)	21 (20.4)	3.73
2	I find the content of digital materials easy to understand	1 (1.0)	2 (1.9)	23 (22.3)	55 (53.4)	22 (21.4)	3.92
3	I find the layout and design of digital reading materials are appealing and make me want to read	2 (1.9)	3 (2.9)	26 (25.2)	43 (41.7)	29 (28.2)	3.91

4	Digital materials are essential for learning English	2 (1.9)	2 (1.9)	25 (24.3)	42 (40.8)	32 (31.1)	3.97
5	I usually use digital reading materials as a source of information for my assignments.	0 (0)	1 (1.0)	20 (19.4)	50 (48.5)	32 (31.1)	4.09
Σf		5	14	130	230	136	T: 515
Σ%		(0.97)	(2.72)	(25.24)	(44.66)	(26.41)	M: 3.92

The results from Table 1 showed that participants tended to enjoy reading digital materials such as e-books, PDFs, and online articles, with a percentage of 38.8%. This was indicated by the high level of agreement with the statement that the content in digital materials was easy to understand, with the highest percentage of 53.4% agreeing and 22.3% disagreeing, and this is in line with previous research that discusses students' views on the use of the internet in forming reading habits. The advantage of reading digital materials is that students can read according to their preferences, both time and place, which makes the reading experience more comfortable and enjoyable for them (Bana, 2020).

The majority of the respondents also showed interest in the layout and design of the digital materials that encouraged them to read further, with the highest percentage of 41.7% agreeing and 28.2% strongly agreeing. Villegas et al. (2023) discovered that digital materials are liked because they are easy to use, accessible, and let students make choices that suit them. Reading digitally remains convenient because it can be done on a variety of devices, including laptops and smartphones. Customization options enable users to modify their reading experience, such as through choosing a different font size or utilizing translation tools.

Additionally, a great number of participants saw digital materials as important for learning English, as seen from the 40.8% of respondents who agreed with the statement. According to Bana (2020), reading English on the internet helps students get better at English and boosts their creativity in learning.

Almost half of them used digital materials as a source for their assignments, with a percentage of 48.5%. Welsen et al. (2023) emphasized that students find digital reading beneficial for several reasons, including the convenience of accessing a large amount of literature, ease of reviewing materials, and the ability to study and review materials without printing them. This highlights that digital reading

materials are used not only for leisure but also for academic purposes, such as assignments.

Table 2
Difficulties in Reading Digital Materials

No	Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
1	I have difficulties while reading digital materials.	12 (11.7)	37 (35.9)	30 (29.1)	15 (14.6)	9 (8.7)	2.72

From Table 2, it was observed that 35.9% of the respondents did not experience any difficulties or obstacles when reading digital materials. A total of 29.1% of the participants showed a neutral attitude towards this issue. This is similar to Foasberg’s (2014), some participants found it hard to concentrate on electronic texts and were frustrated by the limitations in interacting with them compared to printed textbooks.

Table 3
Reading Printed Materials

No	Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
1	I enjoy reading printed materials (printed books)	0 (0)	8 (7.8)	51 (49.5)	29 (28.2)	15 (14.6)	3.49
2	I find the content of printed materials easy to understand	0 (0)	4 (3.9)	40 (38.8)	38 (36.9)	21 (20.4)	3.73
3	I find the layout and design of printed reading	2 (1.9)	5 (4.9)	27 (26.2)	41 (39.8)	28 (27.2)	3.85

	materials are appealing and make me want to read						
4	Printed materials are essential for learning English	0 (0)	4 (3.9)	31 (30.1)	43 (41.7)	25 (24.3)	3.86
5	I usually use printed reading materials as a source of information for my assignments	1 (1.0)	14 (13.6)	45 (43.7)	22 (21.4)	21 (20.4)	3.46
Σf		3	35	194	173	110	T: 515
Σ %		(0.58)	(6.80)	(37.67)	(33.59)	(21.36)	M: 3.68

The results of Table 3 indicated that the majority of respondents tended to be neutral (49.5%) and agreed (28.2%) that they enjoyed reading printed materials. Additionally, 38.8% of respondents were neutral, and 36.9% agreed that the content of printed reading materials was easy to understand. Nevertheless, this differs from Kharisma's findings (2021), where the majority of students agree that reading print books offers several benefits, such as better understanding of the content, improved focus while reading, and greater comfort for their eyes compared to reading digital materials.

In item 3, it was shown that 39.8% of respondents agreed that the layout and design of printed materials were quite attractive and made them want to read. This finding closely aligns with Villegas et al.'s statement (2023) that the arrangement of text and images on printed pages can help us remember important details and connect different ideas.

Furthermore, most of the respondents (41.7%) agreed that printed materials were important for English learning, and the majority (43.7%) were neutral toward using printed reading materials as a source of information for their assignments. According to Bana (2020), recognizing the significance of reading, its development

has been considered a top priority in English as a Foreign Language (EFL), and printed texts have traditionally played a significant role in EFL classrooms.

*Table 4
Difficulties in Reading Printed Materials*

No	Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
1	I have difficulties while reading printed materials	13 (12.6)	32 (31.1)	36 (35.0)	16 (15.5)	6 (5.8)	2.70

Regarding difficulties, students generally feel neutral about reading printed materials. Findings from Farnsworth (2014) found that some college freshmen find online educational materials harder to read compared to print, although the actual difficulty level is the same. It appears that online reading materials are perceived as more challenging than printed ones.

*Table 5
Students' Perceptions on Digital and Printed Materials*

No	Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
1	I feel comfortable reading from digital materials over printed materials.	0 (0)	10 (9.7)	44 (42.7)	33 (32.0)	16 (15.5)	3.53
2	Digital materials provide more up-to-date information compared to print materials	1 (1.0)	3 (2.9)	25 (24.3)	32 (31.1)	42 (40.8)	4.07
3	I believe reading from digital raises my grades compared to	1 (1.0)	12 (11.7)	46 (44.7)	29 (28.2)	15 (14.6)	3.43

	printed materials						
4	In my opinion, I prefer reading from digital materials over printed materials for my studies	1 (1.0)	10 (9.7)	46 (44.7)	26 (25.2)	20 (19.4)	3.52
Σf		3	35	161	120	93	T: 412
Σ%		(0.73)	(8.50)	(39.08)	(29.13)	(22.57)	M: 3.64

It was observed in Table 5 that 42.7% of them felt neutral regarding feeling comfortable reading from digital materials compared to printed materials, followed by 32% who agreed. This contrasts with findings from Foasberg (2014), where students in this study were less comfortable using electronic textbooks and often preferred printing out sections they needed, which nullified any potential cost savings from using commercial electronic textbook versions.

Furthermore, 40.8% of the respondents agreed that digital materials provided more up-to-date information than printed materials. Kong et al. (2018) investigated differences in reading performance between digital and print materials, indirectly supporting the idea that digital materials can offer more current information due to their ease of updating and revising. Similarly, Lim & Hew (2014) discussed the usefulness of e-books with annotative and sharing capabilities for learning, emphasizing the adaptability and accessibility of digital materials, which can be easily updated and shared to ensure users have access to the most current information.

Nonetheless, when asked whether reading from digital materials could improve academic grades, 44.7% felt neutral. However, a majority of 44.7% of the respondents also revealed that they were neutral towards reading from digital materials rather than printed materials for their learning purposes. 44.6% of them liked reading from digital materials more than printed ones for their studies.

The study focused only on 12th-grade high school students in four classes, excluding others from different grades or schools. It did not explore teachers' or parents' opinions on digital and print reading materials. Future research could widen the scope to include students from various grades and educational settings, and also consider gathering input from teachers and parents.

CONCLUSION

The study found that students generally had a positive perception towards both printed and digital materials, with a slightly stronger preference towards digital materials. With mean score for digital reading materials was 3.92, indicating a higher level compared to printed reading materials, which had a mean score of 3.68. Students enjoyed reading digitally more than in print, finding it easier to understand and convenient for tasks, although comfort levels remained neutral. Students appreciated the attractive design of both formats but were more intrigued by digital content. While they recognized the importance of both mediums for learning English, they favored digital materials for their advantages, like current information, but noted that notetaking was easier with printed materials. Overall, students reported neutral difficulties with both formats, finding it easy to access information quickly in digital materials but remaining neutral towards printed materials. Despite the acknowledged benefits of digital materials, students were unsure whether using them could improve their grades compared to print. While digital resources were seen as more advantageous, students' preference for learning from digital over print remained neutral.

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