
DIGITAL NOTE-TAKING PRACTICES IN ONLINE ENGLISH READING AMONG ENGLISH EDUCATION STUDENTS

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Abstract: *This study examines digital note-taking practices among English Education students at Universitas Tanjungpura when reading online English texts. Although digital note-taking has grown alongside the increasing use of digital learning materials in higher education, few studies have specifically looked at how students apply these strategies during online reading activities. This study aimed to describe the frequency and types of digital note-taking practices used by English Education students while reading online English texts. A descriptive quantitative design was employed, involving 30 students selected through convenience sampling. Data were collected using an 18-item questionnaire distributed via Google Form, measured on a five-point Likert scale. The results show that most students frequently read English texts online, with 46.7% doing so very often, mostly through smartphones (86.7%). Highlighting important information was the most commonly used note-taking strategy (66.6%), followed by saving information for later review (70%). Typing short notes was practiced less consistently. The majority of students (80%) agreed that digital note-taking helps them remember information from online texts. Overall, students showed moderate engagement in digital note-taking and tended to rely on simpler strategies. These findings suggest that students may benefit from structured guidance on using more varied digital note-taking strategies to better support their comprehension when reading online academic texts.*

Keywords: *digital note-taking; online reading; English education; learning strategies*

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INTRODUCTION

Note-taking has long been considered an important learning strategy that supports students' comprehension and retention of academic information. When students take notes, they actively process learning materials by selecting key information, organizing ideas, and recording important points that can later be reviewed. In higher education, this practice is particularly relevant for English Education students, who regularly engage with English academic texts as part of their coursework and need to develop effective strategies for processing and retaining information from those materials. Previous research has shown that note-taking improves students' ability to understand complete academic content and enhances long-term memory of learning materials (Mueller and Oppenheimer 2014). Through this process, note-taking becomes an essential strategy for managing information during academic activities such as reading, listening to lectures, and reviewing course materials.

With the rapid development of digital technology, note-taking practices in higher education have gradually shifted from handwritten methods to digital note-taking. Many students now access academic materials through digital platforms such as online journals, e-books, and educational websites. As a result, students increasingly use digital devices such as smartphones, tablets, and laptops to record and organize information. Digital note-taking allows learners to highlight important information, type annotations, summarize key ideas, and store notes for future review. These features allow students to organize, store, and review information more efficiently during learning activities (Morehead et al. 2019). Furthermore, Siegel (2020) emphasizes that note-taking in a second-language context involves additional cognitive demands, as learners must simultaneously comprehend content in their L2 while deciding what information is worth recording, making strategic note-taking especially relevant for English Education students who are learning and processing academic content in a foreign language.

Recent studies indicate that digital note-taking has become a common learning practice among university students. Many students now use digital tools when recording academic information, such as highlighting texts, typing notes, and organizing files in online platforms (Arden et al. 2024). In addition, note-taking is not only about writing information, but it also helps students understand and remember what they read better.

Research by Luo et al. (2016) shows that note-taking can improve students' learning outcomes, especially when students review and organize their notes effectively. These findings suggest that note-taking plays an important role in supporting students' comprehension and learning process, especially in digital learning environments.

Despite the increasing use of digital note-taking in higher education, questions remain regarding how students actually apply these strategies during their learning activities. Previous studies have focused on note-taking during lectures or face-to-face classroom instruction (Morehead et al. 2019; Luo et al. 2016). These studies have provided useful insights into how students record and process information in listening-based contexts, but they have not sufficiently examined digital note-taking during online reading activities. This is an important distinction because online reading requires students to regulate their attention independently, decide what information to record, and manage their notes without the immediate support of a lecturer. Although Azmuddin et al. (2020) found that annotation tools can increase students' engagement with online texts, their study did not explore the specific strategies students use, how often these strategies are applied, or whether they are used consistently and purposefully. This issue is especially relevant for English Education students, who need to develop effective digital reading practices both for their own academic learning and for their future teaching roles. For this reason, the present study seeks to address this gap by investigating students' digital note-taking practices during online English reading.

Given the gap identified above, this study aims to investigate the frequency and types of digital note-taking practices among English Education students while reading online English texts. This focus is important because digital note-taking during online reading remains underexplored, particularly among EFL students in higher education, even though students increasingly rely on smartphones and online platforms when accessing academic materials (Arden et al. 2024). Understanding how students use digital note-taking strategies may provide insight into how they comprehend and retain information from online texts. The findings of this study are expected to benefit English Education students by helping them become more aware of effective digital note-taking strategies for supporting reading comprehension. For lecturers, the results may offer useful information for designing reading tasks and classroom activities that encourage

more strategic note-taking in digital environments. At a broader level, this study may contribute to the development of digital literacy in English Education programs and support the preparation of future teachers who will need to guide learners in navigating online academic texts.

METHODS

Research Design

This study employed a descriptive quantitative research design to investigate the frequency and types of digital note-taking practices used by students during online English reading activities. This design was considered the most appropriate because the study aimed to describe students' existing note-taking behaviors and identify patterns in their use of digital note-taking strategies rather than to examine causal relationships or test the effectiveness of a particular intervention. Quantitative research enables researchers to collect numerical data and identify trends across a group of participants (Creswell 2018), while descriptive research focuses on portraying phenomena as they naturally occur in real-life contexts (Ary Donald and Sorense 2010). By using a descriptive quantitative approach, the researcher was able to measure how frequently students engaged in digital note-taking, determine which strategies were most commonly used, and present these patterns through statistical summaries. Therefore, this design was well suited to addressing the purpose of the study, which was to provide a clear description of students' digital note-taking practices during online English reading.

The participants in this study were 30 students from a single class in the English Education Study Program at Tanjungpura University. They were selected through convenience sampling because they were readily accessible to the researcher during the data collection period. Convenience sampling is appropriate for small-scale descriptive studies when the goal is to describe the characteristics or behaviors of a specific group rather than to generalize findings to a wider population (Etikan et al. 2016).

The selected class was considered appropriate because the students had experience using digital note-taking while engaging with online English reading materials in their academic activities. Most participants were from Semester 6 (96.7%), indicating a relatively homogeneous academic level and suggesting that they had sufficient experience in reading English academic texts and using digital tools.

Data Collection

The data were collected using a questionnaire distributed through Google Form, and the link to the questionnaire was shared with the participants through WhatsApp to make it easier for them to access and complete the survey. Questionnaires are widely used in survey research because they allow researchers to collect information from participants in a structured and efficient way. According to Patten (2016), questionnaires are useful instruments for gathering data related to participants' experiences, behaviors, or opinions about a particular topic. The questionnaire used in this study consisted of 18 statements related to students' digital note-taking frequency and practices when reading online English texts. The items were directly adopted from previous studies on note-taking strategies, particularly from research conducted by Chabot et al. (2021) and Anderson (2003), as these studies discuss note-taking strategies and digital learning practices that are closely related to the focus of the present research. Each statement was measured using a five-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), to identify the degree of participants' agreement with each statement.

Data Analyze

The data obtained from the questionnaire were analyzed using descriptive statistical methods. Once all responses had been collected through Google Forms, the data were exported and organized using Microsoft Excel and IBM SPSS Statistics 27 for systematic calculation and analysis. The questionnaire used a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), and responses were categorized to reflect the degree of students' agreement with each statement about their digital note-taking practices. For each item, frequencies and percentages were calculated by dividing the number of responses in each category by the total number of participants ($n = 30$) and

multiplying by 100, enabling a clear comparison of response distributions across items. Mean scores were also computed for each item by averaging all response values and were interpreted to determine the overall level of students' digital note-taking practices based on the questionnaire indicators, where higher mean scores reflect stronger agreement with the item statement. These measures were selected because they are well suited to summarizing and describing patterns across a group of participants in a clear and systematic manner, consistent with the descriptive quantitative purpose of this study (Creswell 2018). The results were presented in tables to transparently display response distributions, enabling identification of the most frequently used digital note-taking strategies and overall patterns in students' note-taking behaviors during online English reading activities.

FINDINGS AND DISCUSSION

Findings

After the questionnaire sheets were collected from the students, the data were displayed in tables, as can be seen below:

Table 1. Frequency of Reading English Texts Online

Response	Percentage
Very often	46.7 %
Often	30.0%
Sometimes	20.0%
Rarely	3.3%
Total	100%

Table 1 presents the frequency of students reading English texts online. The data show that 46.7% of the respondents reported that they very often read English texts online, while 30.0% stated that they often engage in online English reading. This indicates that approximately 76.7% of students regularly read English texts in digital environments. In

addition, 20.0% of the students selected sometimes, and only 3.3% reported rarely reading English texts online.

Table 2. Devices Used for Online Reading

Semester	Percentage
Smartphone	86.7%
Laptop	13.3%
Total	100%

Table 2 presents the devices used by students for reading online English texts. The data show that smartphones are the most commonly used device, with 86.7% of students selecting this option, while only 13.3% use laptops. No other devices were reported by the participants. The data demonstrate a clear preference for smartphones as the primary medium for accessing online English reading materials.

Table 3. Taking Digital Notes While Reading

Response	Percentage
Strongly Disagree	10.0%
Disagree	10.0%
Neutral	33.3%
Agree	36.7%
Strongly Agree	10.0%
Total	100%

Table 3 presents students' general behavior in taking digital notes while reading online English texts. The data show that 36.7% selected Agree and 10.0% selected Strongly Agree, resulting in a combined percentage of 46.7% who reported engaging in digital note-taking during reading. Meanwhile, 33.3% selected Neutral, indicating neither agreement nor disagreement with the statement. A total of 20.0% of respondents selected Disagree or Strongly Disagree. The responses were distributed across all categories, although the largest proportion was found in the agreement categories.

Table 4. Highlight Important Information

Response	Percentage
Strongly Disagree	0%
Disagree	6.7%
Neutral	26.7%
Agree	33.3%
Strongly Agree	33.3%
Total	100%

Table 4 presents students' practice of highlighting important information while reading online English texts. The results show that 33.3% of the respondents selected Agree, while another 33.3% selected Strongly Agree. In addition, 26.7% chose Neutral, and only 6.7% selected Disagree. No respondents selected Strongly Disagree. The distribution of responses was concentrated in the positive categories, with 66.6% of students reporting agreement with the use of highlighting during online reading.

Table 5. Typing Short Notes While Reading

Response	Percentage
Strongly Disagree	6.7%
Disagree	0%
Neutral	46.7%
Agree	30.0%
Strongly Agree	16.6%
Total	100%

Table 5 presents students' responses concerning the practice of typing short notes while reading online English texts. The largest proportion of respondents (46.7%) selected Neutral. Meanwhile, 30.0% selected Agree and 16.6% selected Strongly Agree, resulting in a combined agreement percentage of 46.6%. Only 6.7% selected Strongly Disagree, and no respondents selected Disagree. Compared with several other note-taking practices

examined in this study, responses to typing short notes were distributed more evenly across the categories.

Table 6. Saving Information for Later review

Response	Percentage
Strongly Disagree	0%
Disagree	6.7%
Neutral	23.3%
Agree	43.3%
Strongly Agree	26.7%
Total	100%

Table 6 presents students' responses regarding the practice of saving information for later review while reading online English texts. The results show that 43.3% of respondents selected Agree, while 26.7% selected Strongly Agree. A further 23.3% selected Neutral, and only 6.7% selected Disagree. Overall, 70.0% of participants reported agreement with this practice, representing the highest combined percentage of agreement among the note-taking behaviors examined.

Table 7. Digital Note-Taking Helps Memory

Response	Percentage
Strongly Disagree	0%
Disagree	0%
Neutral	20.0%
Agree	50.0%
Strongly Agree	30.0%
Total	100%

Table 7 presents students' perceptions of the usefulness of digital note-taking. The data show that a large majority of 50.0% of respondents selected Agree, while 30.0% selected Strongly Agree. While 20% selected neutral responses, and no students expressed disagreement. The responses were concentrated in the positive categories, with 80.0% of

participants expressing agreement that digital note-taking supports their ability to remember important information from online English texts.

Discussion

The findings show that most respondents frequently read English texts online. As presented in Table 1, 46.7% of students reported that they very often read English texts online, while 30% stated that they often do so, indicating that approximately 76.7% of students regularly engage with digital reading materials as part of their academic activities. The results are further supported by the device usage data shown in Table 2, where 86.7% of respondents reported using smartphones to read online texts, while only 13.3% used laptops. While Gikas and Grant (2013) stated that university students increasingly rely on mobile devices for academic learning due to the flexibility and accessibility they provide, the present study extends this finding by demonstrating that smartphone dominance is not limited to general learning activities but specifically characterizes the context of online English reading among EFL students in higher education. This context is important for interpreting students' note-taking behaviors, as the type of device used may directly shape which strategies students are able or likely to employ when reading online texts.

Regarding general digital note-taking behavior, Table 3 shows that 46.7% of respondents agreed or strongly agreed that they take digital notes while reading, while 33.3% selected neutral responses and 20% disagreed. This pattern of moderate engagement is consistent with Morehead et al. (2019), who found that college students' note-taking habits vary considerably and that many students do not always make deliberate or strategic decisions about when and how to take notes. The present study extends this finding by situating it within the specific context of smartphone-based online English reading, where the constraints of the device, such as limited screen space and less convenient typing, may further reduce students' inclination to take notes consistently compared to more traditional lecture-based settings.

Among the different note-taking strategies examined, highlighting important information was the most widely practiced, with 66.6% of respondents agreeing or strongly agreeing that they use this strategy. This finding is in accordance with Dunlosky

et al. (2013), who identified highlighting as one of the learning strategies most commonly used by students. In the context of the present study, however, the popularity of highlighting may be further influenced by students' reliance on smartphones for reading, since the feature is easy to access and can be used without interrupting the flow of reading. This convenience may make highlighting more appealing than typing notes or creating detailed annotations on a mobile device, especially when students are reading quickly or managing multiple tasks at once. At the same time, Dunlosky et al. (2013) caution that highlighting alone has limited value for deep learning because it often encourages passive rather than elaborative engagement with text. For that reason, highlighting may be most useful when it is paired with more active strategies, such as summarizing key ideas in one's own words or formulating questions from the highlighted content, that require students to process and reconstruct information rather than simply mark it.

In contrast, typing short notes was a less consistently practiced strategy. Table 5 shows that 46.7% of respondents selected neutral responses, while 46.6% agreed or strongly agreed that they type short notes while reading. This pattern suggests that many students do not regularly produce written notes during online reading, which may reflect the additional cognitive and physical demands that typing requires in a smartphone-based reading environment. This finding is consistent with Mueller and Oppenheimer (2014), who demonstrated that writing notes requires deeper cognitive processing as students must select, organize, and rephrase information in their own words compared to simply marking text. The present study extends this finding by suggesting that on smartphones, where typing is less convenient than on laptops, this additional effort may discourage students from using typed note-taking as a regular strategy during online English reading. This points to an important area for instructional support, particularly in helping students understand that the cognitive effort involved in writing notes, though greater, is precisely what makes it more effective for comprehension and retention.

Another notable finding concerns students' practice of saving information for later review. Table 6 shows that 70% of respondents agreed or strongly agreed that they save important information while reading online texts, whether through screenshots, bookmarks, or saved files. This behavior aligns with the principle of retrieval practice, which holds that reviewing stored information at a later point strengthens both memory

and comprehension (Karpicke and Roediger 2012) . The present study extends the application of this principle to the context of smartphone-based online reading, suggesting that students intuitively engage in a form of information preservation that could support later retrieval. However, whether students actually return to and actively review saved materials remains an open question that future research could explore.

Finally, the findings reveal that students hold generally positive perceptions of digital note-taking as a learning strategy. Table 7 shows that 80% of respondents agreed or strongly agreed that digital note-taking helps them remember important information, while no students expressed disagreement. This finding is consistent with Piolat et al. (2005), who argued that note-taking encourages active engagement with learning materials and supports memory by prompting learners to process and record information rather than reading through it passively. The present study supports and extends this position in a digital reading context, confirming that English Education students recognize the value of digital note-taking even as their actual practices tend to favor lower-effort strategies such as highlighting. This gap between positive perceptions and actual strategic behavior suggests that students may need more explicit instruction in how to select and apply digital note-taking strategies that are better aligned with their comprehension goals.

Overall, the results indicate that English Education students engage in a range of digital note-taking strategies during online English reading, though the frequency and depth of these practices vary considerably. Highlighting and saving information for later review are the most consistently practiced strategies, while typed note-taking remains less common. Taken together, these patterns suggest that students' digital note-taking behaviors tend to favor convenience and ease of use over strategies associated with deeper cognitive processing a tendency that has been observed more broadly in studies of student learning behavior (Morehead et al. 2019; Dunlosky et al. 2013). For English Education programs, these findings point to a concrete pedagogical need: rather than assuming that students will naturally develop effective digital note-taking habits, lecturers and course designers should consider integrating explicit strategy instruction into reading tasks, modeling how to move beyond highlighting toward more elaborative approaches, and creating opportunities for students to reflect on and evaluate their own note-taking

practices. As prospective English teachers themselves, these students stand to benefit not only as learners but also as future educators who will need to guide their own students in navigating academic texts in increasingly digital learning environments.

CONCLUSION

The findings of this study contribute to understanding how digital note-taking supports comprehension in online English reading, highlighting students' reliance on simple strategies such as highlighting and saving information. The results show that many students frequently read English texts online, with 46.7% of respondents reporting that they very often engage in online reading activities, and most of them (86.7%) using smartphones as their primary device. In terms of digital note-taking practices, highlighting important information was identified as the most commonly used strategy (66.6%), indicating that students tend to mark key ideas while reading digital texts. Furthermore, the majority of respondents (80%) agreed that digital note-taking helps them remember important information from online English texts. Overall, these findings suggest that digital note-taking is perceived as a helpful strategy that supports students in organizing and retaining information during online reading activities.

SUGGESTION

Based on the findings of this study, several suggestions can be proposed for both educational practice and future research. Since the results indicate that students are familiar with digital note-taking practices but tend to rely mainly on simple strategies such as highlighting, lecturers may consider introducing more structured digital note-taking techniques to help students organize and process information more effectively when reading online English texts. Providing guidance on strategies such as summarizing, annotating, or organizing notes digitally may help students improve their comprehension and retention of reading materials. Lecturers may also train students to use digital note-taking applications such as Google Docs or Word, which allow more complex strategies like mind mapping or collaborative notes, thereby enhancing collaborative learning and deeper comprehension. In addition, educators should encourage students to reflect on the effectiveness of different note-taking approaches, whether recording large portions of text

or focusing only on key points, so that they can develop greater awareness of which strategies best support their understanding. From a theoretical perspective, this study contributes to the understanding of how digital note-taking supports students' online reading activities in higher education contexts. However, further studies are recommended to explore digital note-taking practices using larger samples or different research designs, such as experimental or mixed-method approaches, in order to gain deeper insights into how digital note-taking influences students' reading comprehension and learning outcomes.

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