Flipbook as a Learning Medium: A Study on Indonesian ESP Students

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Abstract
Technological advancements are significantly transforming the landscape of Indonesian education, shifting from traditional methods to digital learning media. This study examines the adoption of Flipbook, a digital tool, in English for Specific Purposes (ESP) courses, aiming to enhance the learning experience for students enrolled in English language study programs. Utilizing Flipbook as an instructional medium, lecturers anticipate offering a novel approach to integrating technology in education. Data were gathered through questionnaires administered to seventy-six students focusing on ESP materials. The questionnaire, comprising thirty-one items with both positive and negative statements, evaluated four key aspects: the completeness of the learning content delivered through Flipbook, student engagement in learning activities, the effectiveness of lecturers in managing the digital learning environment, and the adequacy of facilities and infrastructure supporting the use of Flipbook. The findings demonstrated varying levels of effectiveness: The lecturer's ability to manage Learning was notably effective, with a high mean score of 44.97, indicating that Flipbook facilitates dynamic classroom management. Learning Activities also showed positive outcomes, with a mean score of 36.43, suggesting satisfactory engagement and interactivity. However, Learning Completeness and Facilities and Infrastructure highlighted areas needing improvement, with mean scores of 31.57 and 27.24, respectively. These lower scores reveal significant gaps in content delivery completeness and the supporting infrastructure, which are critical for effectively using digital learning tools.

Keywords: Flipbook, English language learning, English for specific purpose, learning media

INTRODUCTION
Technological advancements have significantly transformed the educational landscape in Indonesia. Current teaching and learning processes must adapt to incorporate these technological innovations effectively (Ghina et al., 2022). Utilizing technology in education not only enhances the learning experience but also stimulates student engagement. Across the globe, educators are transitioning from traditional methods to technologically enhanced instructional strategies. These strategies typically involve using...
online learning resources to heighten student interaction with educational content (Mustofa et al., 2020). Advances in creating interactive learning media represent a key technological progression in this field (Irfandi & Yuhelman, 2023). Consequently, such technologies are now commonly integrated into the teaching methods employed by educators.

Effective use of learning media can significantly expedite the achievement of educational objectives and augment student motivation (Puspitarini & Hanif, 2019). Moreover, learning media facilitates a deeper engagement with the material, enabling students to comprehend and surpass their teachers in knowledge acquisition (Nazilah & Rezania, 2023). Despite its importance, suitable learning media for online education still needs to be improved (Antara & Dewantara, 2022; Atsani, 2020; Qurrotaini et al., 2020). Integrating appropriate learning media with technological tools is essential for enhancing the educational process.

Incorporating technology into educational settings supports diverse, accessible, and engaging learning activities. The rapid development of internet technologies is pivotal in easing the teaching and learning processes. Adopting digital books, for instance, is anticipated to boost students’ interest and eagerness to engage with specific materials. Interactive digital books, in particular, enhance motivation and engagement with learning topics. Moreover, the utilization of digital teaching mediums offers several benefits: these include more structured learning activities, enhanced interest and interaction during lessons, improved quality of education, flexibility to learn anytime and anywhere, increased motivation among students, and a shift from educators being the sole source of knowledge.

Teaching mediums significantly influence the effectiveness of learning processes. They serve as essential learning tools or instructional designs aligned with the curriculum to achieve specific competency standards (Nurdyansyah & Mutala‘liyah, 2015). These mediums play a critical role in educators’ design of their teaching strategies (Nesri & Kristanto, 2020). Moreover, developing teaching mediums sharpens teachers’ thinking skills, enabling them to innovate in educational content creation (Maulida, 2022). According to Heriyawati and Sulistyow (2016), learning media encompasses various tools that facilitate the delivery of academic content, stimulating students’ attention, interest, and engagement, and contributing to attaining learning objectives. Consequently, creating teaching mediums enhances pedagogic competencies and improves the efficacy and efficiency of classroom instruction, ensuring that discussions remain focused on specific learning indicators.

One innovative teaching medium application includes using Android technology to introduce students to new scientific concepts (Efliriani et al., 2023). Additionally, digital books represent a technological advancement in teaching mediums, offering dynamic and interactive content. Digital books are electronic versions of printed books that can be accessed on computers or smartphones without the need for printing, combining elements like text, graphics, images, and multimedia to enrich the learning experience (Handayani et al., 2020; Mulyaningsih & Saraswati, 2017). The adaptability of digital books allows for customized visual presentations that engage students. These books offer several advantages over traditional textbooks, including their attractive presentation, practicality, cost-effectiveness, searchable text features, easy accessibility, rapid duplication process, and compatibility with various digital devices.

Various applications, such as Flipbook, can facilitate the production of digital books. This study utilizes Flipbook as the primary learning medium. For instance, the Kviso
Flipbook Maker software converts PDF files into interactive flipbooks, digital catalogs, digital magazines, and e-modules, making it a valuable tool in educational settings for providing e-learning resources (Rini et al., 2023). This technology is widely adopted in education because it enhances instructional delivery through digital means.

Flipbook is a specialized software designed to easily create digital books, catalogs, brochures, and presentations (Handayani et al., 2020; Hardiansyah & Mulyadi, 2022). This tool enables educators to deliver electronic teaching materials more engagingly by incorporating interactive elements such as images, videos, animations, and text (Rusnilawati & Gustiana, 2017). The interactive features of flipbooks, including moving animations and audio-visual content, make the learning process more dynamic and less monotonous (Wibowo & Pratiwi, 2018).

Traditionally, a flipbook refers to an animation technique using a series of drawings on paper that, when flipped quickly, simulate motion (Abror et al., 2020). The distinct advantage of digital Flipbook over other e-books is its ability to integrate multimedia elements on each page, enhancing the contextual understanding of the material (Wulandari & Khoirunnisa, 2023; Yuliyanto et al., 2022). Additionally, this media can be utilized offline by uploading the content to a Flipbook platform (Yuliyanto et al., 2022).

Previous research by Mahara et al. (2015), Qomah & Khosiyono (2022), Situmorang et al. (2020), and Mulyaningsih & Saraswati (2017) explored the development of Flipbook learning media for diverse educational levels, including elementary, junior high, and mechanical engineering students. Utilizing a Research and Development (R&D) methodology, these studies found that Flipbook significantly enhances learning outcomes, suggesting its potential as an alternative to traditional learning media. In the current study, we aim to assess the validity and reliability of using Flipbook as a learning tool for students majoring in English, focusing on English for Specific Purposes (ESP) material, employing quantitative research methods.

**METHOD**

This study was conducted in an English for Specific Purposes (ESP) program at a private university in Malang, East Java, Indonesia, targeting students aiming to become Front Officers. This course, focusing on office-related English terminology, grants two academic credits over one semester. Seventy-six students from this department participated in a survey to evaluate a newly developed learning tool. Quantitative research methods were utilized, with data primarily gathered through a questionnaire to assess how effectively teachers and students perceived ESP learning. According to Carpino et al. (2019), the questionnaire is a valid and widely used medium for the acquisition of information. The process involved distributing questionnaires to gather student insights on the course’s effectiveness, using SPSS for statistical analysis of the responses, and interpreting the data to evaluate the impact of the learning media.

The research instrument consisted of 31 positive and negative statements, rated on a five-point Likert scale from Strongly Agree (SS) to Strongly Disagree (STS). It evaluated four critical aspects of the learning experience: the completeness of learning materials, engagement in learning activities, lecturers’ competency in managing the process, and the adequacy of facilities and infrastructure. This methodology ensured a thorough understanding of the learning media’s utilization and effectiveness in enhancing the ESP learning environment. The validity of the questionnaire, assessed through indices that
surpassed the critical r-table value of 0.227, confirmed that each question reliably measured its intended construct. Additionally, the questionnaire's reliability was established with an R-count of 0.73, which is sufficiently high, indicating a consistent and dependable tool for capturing the educational impact accurately across multiple administrations (Matheson, 2019).

Furthermore, in our study, we conducted a quantitative analysis to evaluate the effectiveness of Flipbook learning media across several educational aspects. We calculated mean scores from questionnaire responses concerning Learning Completeness, Learning Activities, Lecturer’s Ability to Manage Learning, and Facilities and Infrastructure. To interpret these mean scores effectively, we established a classification system that categorized the scores into three distinct levels: low, medium, and high. This categorization was based on the observed range of mean scores, which spanned from 27.24 to 44.97. Specifically, scores ranging from 27.24 to less than 33.15 were classified as low, indicating areas requiring improvement. Scores from 33.15 to less than 39.06 were considered medium, suggesting adequate performance with potential for enhancement. Scores from 39.06 to 44.97 were classified as high, denoting excellent performance and effective use of the learning media. This structured approach to data analysis allowed us to assess the effectiveness of each aspect of the learning media systematically, providing a clear, quantitatively supported evaluation of areas of strength and those needing further attention.

FINDING AND DISCUSSION

The findings from this investigation are about the effectiveness of Flipbook learning media. The study meticulously analyzed four aspects of the educational experience: Learning Completeness, Learning Activities, the Lecturer’s Ability to Manage Learning, and Facilities and Infrastructure. Each aspect was evaluated based on the mean scores derived from a structured questionnaire administered to seventy-six students. These scores were then classified into low, medium, and high ranges to provide a clear assessment of the performance of each educational component facilitated by Flipbook. The following detailed analysis offers insights into how Flipbook supports or falls short in enhancing the learning environment for students pursuing this specialized curriculum.

Table 1. Description of aspects of the effectiveness of Flipbook learning media

<table>
<thead>
<tr>
<th>Aspects</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Completeness</td>
<td>31.57</td>
<td>2.131</td>
<td>26</td>
<td>35</td>
</tr>
<tr>
<td>Learning Activities</td>
<td>36.43</td>
<td>2.074</td>
<td>32</td>
<td>40</td>
</tr>
<tr>
<td>Lecture’s Ability to Manage</td>
<td>44.97</td>
<td>2.400</td>
<td>39</td>
<td>50</td>
</tr>
<tr>
<td>Learning Facilities and</td>
<td>27.24</td>
<td>1.825</td>
<td>23</td>
<td>30</td>
</tr>
</tbody>
</table>

The analysis of the effectiveness of Flipbook learning media across various educational aspects reveals a mixed landscape of outcomes. The mean score of 31.57 for Learning Completeness places this aspect in the low range, indicating a need for significant enhancements to achieve the desired educational objectives. Despite being close to transitioning into the medium category, the consistency in the responses, evidenced by a standard deviation of 2.131, confirms a consensus on the need for improvement. Conversely, Learning Activities, with a mean score of 36.43, fall into the medium range. This suggests
that while the activities facilitated by Flipbook are adequately effective, there remains potential for further enhancement to elevate this aspect to a higher level of effectiveness. The low standard deviation of 2.074 points to uniformity in student perceptions, reinforcing the reliability of this finding.

The Lecturer’s Ability to Manage Learning is a standout in the analysis, which scored a high mean of 44.97. This high rating places it in the upper echelon of effectiveness, indicating that lecturers are proficient in leveraging Flipbook to manage Learning. Although the standard deviation of 2.400 shows slightly more response variability, the overall high score underscores a successful application in this domain. However, the Facilities and Infrastructure aspect scored a mean of 27.24, categorizing it in the low range. This score highlights a significant shortfall in the physical and technological support necessary to effectively utilize Flipbook, with a tight standard deviation of 1.825, suggesting a widespread agreement among students about these deficiencies.

Furthermore, these findings underscore a critical need for targeted improvements, particularly in learning completeness and facilities and infrastructure, to capitalize on the benefits of Flipbook learning media fully. While some aspects, like lecturer management, excel, the overarching effectiveness could be improved by underperforming areas, calling for a balanced approach to enhance the educational experience. The results from the conducted research underscore the significant role of Flipbook as a learning medium, particularly highlighting the lecturer’s ability to manage classroom activities effectively. Assessments from various aspects of the distributed questionnaire support these findings. Similarly, research by Roemintoyo and Budiarto (2021) aligns with these findings, aiming to explore the potential for developing technology-integrated, flipbook-based learning media to enhance literacy skills. The results of this study indicate that students hold a positive perception of the opportunities to develop and utilize Flipbooks as digital learning media. These outcomes provide a solid basis for educators to develop and implement Flipbook-based digital learning media to facilitate learning.

Additionally, Abror et al. (2020) emphasized the development of an interactive digital book in the form of a Flipbook for technical drawing courses, testing the feasibility of the produced materials. The result is an interactive digital book effectively serving as a learning resource. The development of learning media in the form of Flipbooks, as noted by Indah et al. (2020), not only focuses on the material displayed but also on enhancing the learning process outcomes. This is demonstrated through the assignment of final projects where students apply Flipbook applications in their work, with the success of these projects confirmed by the assessments of both a material expert and a display design expert.

Flipbooks have proven to be a versatile learning medium, initially adopted during the COVID-19 pandemic when education shifted from face-to-face to online. As noted by Alfonsius (2021), this period saw a marked increase in the utilization of technological tools in education. However, Astini (2020) highlighted significant challenges during this transition, including accessibility issues, as 50% of students lacked personal technological devices like laptops, and 80% suffered from inadequate network infrastructure. These challenges were particularly pronounced for students from non-urban areas, leading to perceptions of technology use as less effective during the pandemic.

Despite these challenges, integrating digital tools like Flipbooks has catalyzed digital transformation in Indonesian education. The shift to digital is now a critical trend that
educators and students must embrace. This era emphasizes digital competence, encompassing confidence in and using information and communication technologies. According to Tresna et al. (2022), while digital learning platforms can boost student motivation, discipline, and autonomy, they also raise concerns about increased internet costs and a perceived distance between teachers and students.

Several strategies have been proposed to address these mixed outcomes, including boosting student engagement with digital tools, enriching learning resources, extending support to educators, leveraging existing platforms, and enhancing teacher training, as Husain et al. (2021) suggested. Nevertheless, digital Learning continues to face skepticism, particularly from parents who feel that digital platforms diminish the traditional role of teachers, as evidenced by Husain et al. (2020). Their research revealed that 99% of parents believe conventional teaching methods are more effective than digital alternatives, and 76% reported a deterioration in the cooperative relationships among parents, students, and teachers during periods of digital Learning. In conclusion, while Flipbooks and similar digital resources offer significant advantages for current face-to-face lectures and continue to be relevant post-pandemic, integrating such technologies must be carefully managed to address the diverse needs and circumstances of all stakeholders involved in the educational process.

CONCLUSION

The research findings demonstrate that Flipbook is a highly effective learning medium for managing classroom interactions, as highlighted by a notably high mean score of 44.97 in the lecturer's ability to manage Learning. This suggests that Flipbook enables educators to deliver content dynamically and interactively, enhancing the overall learning experience. Conversely, the study identified significant challenges, particularly in the accessibility of technological resources, with Facilities and Infrastructure receiving the lowest mean score of 27.24. This indicates substantial inadequacies in the support structure necessary for optimal use of Flipbook, especially affecting students from non-urban areas who may need access to reliable technology and internet services.

Furthermore, it becomes evident that while Flipbook offers substantial benefits in educational settings, its full potential is hindered by infrastructural limitations. Addressing these gaps is crucial for ensuring that all students can benefit from the digital learning opportunities that Flipbook provides. Enhancing digital infrastructure and providing targeted support for under-resourced students will be essential in leveraging Flipbook's capabilities to transform educational experiences effectively. One significant area for improvement is the focus on a single educational institution, which may not provide a comprehensive view of the varied educational contexts across different regions or types of institutions. Additionally, the reliance on self-reported data from questionnaires could introduce biases related to students' perceptions and may not accurately reflect the actual effectiveness of the learning tool.

Given these limitations, future research could expand the scope of the investigation to include multiple educational settings across different geographical locations to gain a more generalized understanding of Flipbook's impact. Further studies could also employ a mixed-methods approach, integrating qualitative data through interviews or focus groups with students and educators. This would provide deeper insights into the practical
challenges and benefits of using Flipbook, offering a more nuanced understanding of its effectiveness across diverse learning environments.

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