Flipbook and E-Learning for Teaching English to Elementary School Teacher Education Students

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Abstract
The purpose of this study is to investigate the lecturers’ and students’ perception of flipbooks and e-learning in enhancing English learning for teacher education students, the influence of technology integration on student-centered pedagogy for teacher education students, and the use of flipbooks and e-learning to improve English skills for teacher education students. Thirty students and nine lecturers from elementary school teacher education programs at three Indonesian universities participated in this study, which used the qualitative descriptive technique. They attend Universitas Halu Oleo Kendari in Southeast Sulawesi, Universitas Borneo Tarakan in North Kalimantan, and Universitas Negeri Jakarta in Jakarta. Data collection was conducted through documents, observations, interviews, and questionnaires. This study found that both lecturers and students positively perceive flipbooks and e-learning as tools for enhancing English learning in elementary school teacher education.

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Flipbooks effectively present complex concepts, while e-learning provides accessible, diverse resources that develop digital skills. Technology integration significantly benefits student-centered pedagogy but also poses challenges such as technical issues and increased workloads. The study highlighted the need for interventions to improve students’ listening and speaking skills, suggesting that combining effective teaching methods and digital media can enhance English language proficiency and the overall learning experience. It is suggested that more efforts should be directed toward promoting technology pedagogy content knowledge that fosters students’ higher-order thinking skills in English teaching materials for elementary school teacher education programs in higher education in Indonesia.

**Keywords:** E-learning, elementary school teacher education, flipbook, Technology Pedagogy Content Knowledge (TPACK).

1. **INTRODUCTION**

In recent years, the impact of technology on education has transformed. These transformations have been demonstrated by the following outcomes: increased access to knowledge, increased interactivity, and facilitation of learning that is available at any time (Al-Samarraie et al., 2018; Dangaiso et al., 2022; Rahmawati et al., 2023). Students now have more access to a bigger variety of resources and information both inside and outside of the classroom due to technological improvements. They also have access to an infinite number of teaching resources and can study books and learn about a variety of topics via the Internet and other digital resources (Roick et al., 2023; Siregar et al., 2023; Usman et al., 2020; Zawacki-Richter & Jung, 2023). Technology has also enabled students to interact with instructional material in more engaging and dynamic ways. Students can use technology, for instance, to produce electronic textbooks (e-books), take part in role-playing games, and work with classmates on projects (Alenezi, 2023; Sianipar et al., 2023; Yaniawati et al., 2021).

Instructors can customize lessons to meet the individual requirements and learning styles of each student. The Independent Learning Campus Independence learning curriculum requires competitive, technologically savvy, creative, and inventive learning. Due to changes in learning systems and patterns, strategy technology-based learning has become an essential component of the teaching and learning process. Changes in technology-based educational systems can be supported by current learning resources in simple and easy-to-accept ways (Ergashevich, 2024; Muradov, 2024). For example, by combining flipbook and e-learning innovations, users can create a more interesting, interactive, and accessible learning experience (Nurlaila et al., 2020; Oktarina et al., 2021; Yuyun et al., 2022).

Universities now offer e-learning to facilitate quick, effective learning, and electronic books are useful teaching aids. The results of research by Bunari et al. (2023) and Suripto et al. (2024) on the use of flipbooks in education demonstrate that they could directly and creatively involve students while also assisting in the development of their visual communication abilities. Accessing course materials from any device, engaging in interactive activities, and accessing course information is
made simple for students by interfaces that are easy to use and understand (Astutik & Milarisa, 2021; Eliyasni et al., 2021; Siregar et al., 2022). With flipbooks and e-learning, students may easily access and review course materials and locate important information quickly. Empirical evidence was needed to identify flipbook issues and support changes for technological innovation to improve education. Therefore, research innovation was carried out in this study to address the following research questions:

1. How do lecturers and students perceive flipbooks and e-learning in enhancing English learning for teacher education students?
2. How does technology integration influence student-centered pedagogy in higher education?
3. How can flipbooks and e-learning improve English skills for teacher education students?

The novelty of this research lies in its examination of combining flipbooks and e-learning to enhance English teaching for elementary school teacher education students. This study fills a gap by providing empirical evidence on the effectiveness and challenges of integrating these technologies in the educational context.

2. LITERATURE REVIEW

2.1 Integration of Educational Technology

Education, as a systematic approach to teaching, is strongly tied to technology. Educational technology, with its technical settings, educational theory, and pedagogical practice, enhances teaching and learning. The paradigm of teaching is changing due to advancements in information and communication technology (Englund et al., 2017; Usman & Anwar, 2021), particularly in terms of how knowledge is delivered (Stumbriene et al., 2024). These technological advancements improve the learning experience by allowing for greater involvement, connectedness, and community.

Though some have criticized the excessive use of technology in the classroom (Pun et al., 2024), students’ involvement in the use of educational technology is becoming more and more crucial. Support for this comes from social constructivism, which encourages students to create knowledge through their own experiences and social interactions (Buckley et al., 2024; Vygotsky & Cole, 1978). Educational technology permits students to shape the learning that they want (Ertmer et al., 2012).

2.2 E-Learning in Education

Digital education uses technology to combine virtual and actual knowledge. E-learning and network connectivity have made it more realistic to improve dynamic teaching in an e-learning environment. E-learning enables students to learn in a variety of environments through social interaction and content by using personal electronic devices (Elfiondri et al., 2022; Olszewski & Crompton, 2020). As a result, pedagogy for digital education necessitates teaching approaches that may be tailored to learning in a variety of circumstances (Nouraey & Al-Badi, 2023). Social constructivism provides the theoretical foundation for improving knowledge in digital education (Liu
et al., 2018). Therefore, a student-centered learning method that is supported by technology is required, resulting in an active learning process with inquiry skills for learning utilizing technology (Pedaste & Sarapuu, 2006). Digital education weaves e-learning with cross-cutting knowledge in a variety of areas (Mishra & Koehler, 2006), including technical skills, pedagogy, and subject domains, despite proposed potential conflicts in the methods of instruction (Ramli et al., 2023; Zainul et al., 2020). Since technology has become more widely used, research on e-learning and pedagogy has focused on learning using mixed models and technology (Dahal & Manandhar, 2024). The research results of Puniatmaja et al., (2024) pointed out that if no other person engages in the evaluation, pedagogical abilities may not be fully explored or properly assessed. As a digital form of education, e-learning requires pedagogical knowledge.

2.3 Flipbook in Education

A flipbook is a form of media consisting of a series of images arranged sequentially in a book. When the book is held and the pages are turned, either fast or slow, the images will appear to move or change very quickly, giving an animated effect. In general, a flipbook is a three-dimensional digital book that can contain text, images, videos, music, or songs, as well as moving animations (Nurlaila et al., 2020; Oktarina et al., 2021; Yuyun et al., 2022), thus categorizing flipbooks into the digital book or e-book (electronic book) category.

Flipbooks may be more engaging and useful for students to learn than conventional methods like reading aloud or giving lectures. Because of this, students view mobile technology favorably as a teaching tool and find it to be interesting, interactive, and pleasurable to use (Eliyasni et al., 2021; Roemintoyo & Budiarto, 2021; Sriyanti et al., 2020). Flipbooks also offer more interactive and visual resources for students to interact with, which can enhance in-person learning. They are useful for educators to emphasize important ideas or concepts, and students can make their own flipbooks to demonstrate what they have learned (Nurlaila et al., 2020; Yuyun et al., 2022).

Flipbooks are a useful tool for encouraging in-person and virtual student cooperation. For instance, students may work together on a collaborative project using flipbooks, or they could use flipbooks to share their work with classmates (Eliyasni et al., 2021; Lestari et al., 2022; Roemintoyo & Budiarto, 2021). All things considered, flipbooks can be useful teaching tools in coed classrooms since they give students a dynamic and aesthetically pleasing way to study.

2.4 Technology Pedagogical Content Knowledge (TPACK)

Information technology advancements have promoted the use of technology in education to raise teaching standards. The Technology Pedagogical Content Knowledge (TPACK) framework combines technology into learning with knowledge and content, pedagogical knowledge, and technological knowledge (Max et al., 2024; Rosenberg & Koehler, 2015). These four components of TPACK interact in four ways, namely: technological content knowledge (TCK), pedagogical content knowledge (PCK), technological pedagogical knowledge (TPK), and technological pedagogical content knowledge (TPCK). A conceptual framework of TPACK is used to examine the interactions between technology, pedagogy, content, and knowledge in the learning
process (Mishra & Koehler, 2006). Content knowledge is an understanding of the material that the teacher will teach, including facts, ideas, theories, and methods, as each learning material requires a specific approach. Pedagogical content knowledge includes understanding students’ knowledge and conceptual representations that are appropriate for the learning material. Technological knowledge includes an understanding of the interaction between technology and content, where TCK helps teachers understand lesson material and use technology for lesson content actively in the classroom (Lim et al., 2024; Öztürk et al., 2023; Zeng, 2023).

Accordingly, TPACK serves as a framework for comprehending and characterizing the kinds of knowledge that educators require to implement successful pedagogical strategies and comprehend topics through the integration of technology into the classroom. These three elements’ interactions have the capacity and attraction to promote student-centered, active learning. This might also be seen as a change in how learning is conducted, with the focus now being on the students rather than the teacher (Mishra & Koehler, 2006).

3. METHODS

This research employed a qualitative descriptive method, gathering data through documents, observations, interviews, and questionnaires (Koskei & Simiyu, 2015). This approach allows for an in-depth understanding of individual perspectives and experiences.

3.1 Participants

Random sampling techniques were used to select 30 elementary school teacher education students and nine English lecturers from three universities: Universitas Negeri Jakarta, Universitas Tarakan Borneo, and Universitas Hali Oleo. Each university contributed 10 students and three lecturers, chosen for their expertise, professionalism, and education certificates.

3.2 Research Design

The research design followed the Miles and Huberman (1994) model, which involves three main activities: data reduction, data display, and conclusion drawing/verification.

![Figure 1. Modification of the research design (adapted from Miles & Huberman, 1994).](image-url)
The study began with document analyses of the lecturers’ semester learning plans, English teaching materials, and learning outcomes. Following observations, initial diagnoses were conducted, and questionnaires were distributed to students and lecturers. The results were analyzed and supplemented with semi-structured interviews, which aimed to understand perspectives on flipbooks, e-learning, English language learning skills, and lecturers’ professional experiences. Finally, conclusions were drawn from all relevant findings.

3.3 Data Collection

Data collection involved document analysis, interviews, and questionnaires. The questionnaire included 30 questions on flipbooks, 30 on e-learning, and 20 on English learning skills. Semi-structured interview protocols were developed to gain insights into the perspectives of students and lecturers on these topics. All interviews were recorded and transcribed.

NVivo software was used for qualitative data analysis. Thematic analysis was employed to develop a comprehensive understanding of the data (Braun & Clarke, 2006). Following data collection, the Miles and Huberman (1994) model was applied for analysis, which included data reduction to identify significant information, data presentation to provide an overview, and drawing conclusions. These conclusions were verified and could be adjusted based on additional evidence.

3.4 Data Analysis

Students and lecturers completed assessment sheets and questionnaires with 30 questions on flipbooks, 30 on e-learning, and 20 on English learning skills. Responses were scored using a 5-point Likert scale: 1 (poor), 2 (fair), 3 (good), 4 (very good), and 5 (excellent). These questionnaires were complemented by interviews.

<table>
<thead>
<tr>
<th>Assessment aspect</th>
<th>Instruments</th>
</tr>
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<tbody>
<tr>
<td>Point of perspective flipbook</td>
<td>Open-ended questionnaire and interview</td>
</tr>
<tr>
<td>Use a flipbook for learning the English language</td>
<td>Interview and questionnaire</td>
</tr>
<tr>
<td>Pedagogical content knowledge</td>
<td>Open-ended questionnaire for teaching material assessment</td>
</tr>
<tr>
<td>English expertise at the Elementary Teacher Education Program</td>
<td>Open-ended questionnaire</td>
</tr>
<tr>
<td>Point of perspective e-learning</td>
<td>Open-ended questionnaire and interview</td>
</tr>
<tr>
<td>Technology pedagogical content knowledge</td>
<td>Open-ended questionnaire for teaching material assessment</td>
</tr>
<tr>
<td>Point of perspective English skill at Elementary Teacher Education Program</td>
<td>Open-ended questionnaire and document analysis</td>
</tr>
</tbody>
</table>

Questionnaires were distributed to students and lecturers, who responded based on their situations and opinions. Table 2 shows that the 30 questionnaire items for flipbooks and e-learning are reliable, with a Cronbach’s Alpha value of 0.828, which exceeds the threshold of 0.60.
Table 2. Results of reliability of flipbook and e-learning questionnaire.

<table>
<thead>
<tr>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cases Valid</td>
<td>30</td>
</tr>
<tr>
<td>Excluded*</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
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</tbody>
</table>

Listwise deletion based on all variables in the procedure.

<table>
<thead>
<tr>
<th>Reliability statistics</th>
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<tbody>
<tr>
<td>Cronbach’s Alpha</td>
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<tr>
<td>828</td>
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</table>

Table 3 indicates that the 20 questionnaire items for English proficiency are reliable, with a Cronbach’s Alpha value of 0.672, which exceeds the threshold of 0.361.

Table 3. Results of reliability of English language skill questionnaire.

<table>
<thead>
<tr>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cases Valid</td>
<td>20</td>
</tr>
<tr>
<td>Excluded*</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
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</table>

Listwise deletion based on all variables in the procedure.

<table>
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<th>Reliability statistics</th>
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<tbody>
<tr>
<td>Cronbach’s Alpha</td>
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<tr>
<td>.672</td>
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</table>

4. RESULTS

This section presents the findings of the study, addressing the three research questions on the lecturers’ and students’ perception of flipbooks and e-learning in enhancing English learning for teacher education students, the influence of technology integration on student-centered pedagogy for teacher education students, and the use of flipbooks and e-learning to improve English skills for teacher education students.

4.1 The Perceptions of Flipbooks and E-Learning in Enhancing English Learning for Teacher Education Students

Table 4 shows the results of the lecturer’s questionnaire for flipbooks. The results are presented using a questionnaire consisting of five parts. The results are shown in Table 4. The average score of the questionnaire, which is >50%, falls into the ‘very needed’ category. The results of the questionnaire indicate that flipbooks are perceived as a fun and effective tool for conveying information, concepts, or complex ideas, and visualizing the relationships between concepts.

Table 4. Results of the lecturers’ questionnaire for flipbooks.

<table>
<thead>
<tr>
<th>Assessment aspect</th>
<th>Average score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Point of view flipbook</td>
<td>89.01</td>
</tr>
<tr>
<td>Aspect of language</td>
<td>86.76</td>
</tr>
<tr>
<td>Pedagogical content knowledge</td>
<td>89.58</td>
</tr>
<tr>
<td>Synthesis of understanding</td>
<td>87.92</td>
</tr>
<tr>
<td>Easy to use</td>
<td>86.05</td>
</tr>
</tbody>
</table>
From the lecturer’s perspective, flipbooks can explain concepts interestingly and interactively. Flipbooks offer a unique and different approach to conveying messages compared to other media, such as text or slide presentations. Both students and lecturers view flipbooks positively in English learning activities for elementary school teacher education students. They believe that flipbooks can improve understanding of the material being taught, enhance creative skills, and make learning more enjoyable and interesting.

Table 5. Results of the students’ questionnaire for flipbooks.

<table>
<thead>
<tr>
<th>Assessment aspect</th>
<th>Average score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Point of view technology</td>
<td>88.40</td>
</tr>
<tr>
<td>Point of view on e-learning</td>
<td>86.91</td>
</tr>
<tr>
<td>Technology pedagogical content knowledge</td>
<td>89.74</td>
</tr>
<tr>
<td>Easy to use</td>
<td>87.63</td>
</tr>
</tbody>
</table>

The results of the students’ questionnaire for e-learning are displayed in Table 5. The average score of the questionnaire, which covers acceptability and current development issues, is over 50%. Easy access is provided by the e-learning perspective questionnaire findings from students. With an internet connection, students enrolled in elementary school teacher education programs can access course materials from any location. Their preferred learning style can be selected from a range of learning resources, such as text, videos, simulations, and other interactives. Using e-learning can benefit the development of e-learning-based digital skills in addition to academic resources.

The perspectives on flipbooks and e-learning assume that procedural demands in implementing learning prioritize material achievement over developing students’ English skills. One informant said:

(1) The essence of learning English lies in cultivating English language skills. Then we need digital teaching materials that are easily accessible without limits to facilitate the development of students’ English and pedagogical skills. (Lecturer from University A)

This is also supported by interview results that English language learning can be integrated using flipbooks as a learning innovation. Some informants said:

(2) I still need to get a lot of information related to e-learning and flipbooks. (Lecturer from University C)

(3) The English teaching materials used have not changed; they require modern English teaching materials so that we can speak English natively. (Lecturer from University B)

Digital classroom activities using mobile devices, software, and hardware are referred to as e-learning. Hardware includes physical elements like servers, infrastructure, and Wi-Fi interfaces. Software refers to intangible parts that are installed in hardware, like apps, learning management systems, and communication systems. Computers, tablets, and smartphones, among other mobile devices linked to mobile learning, are all regarded as mobile devices.

The lecturers agreed on the relevance of digital education, such as the usage of e-learning and flipbooks, in demonstrating the digitalization trend in higher education,
but most were skeptical about digital education paralleling present technological capabilities. They are concerned that they lack the competence to incorporate technology in their teaching approaches. They understand technology more slowly than digital native kids. They noted that technological issues with e-learning came suddenly and unexpectedly, despite adequate planning. Application failure, inconsistent internet, and distorted sound all contribute to a poor teaching experience. Furthermore, they require time-consuming procedures for creating technology-enhanced teaching designs, such as setting up equipment, recording, composing subtitles, and uploading large files. One informant revealed:

(4) I am not an expert in software and the use of e-learning. It takes a long time to use it and become skilled. There were a lot of difficult technical requirements in my initial stages of using technology to teach. (Lecturer from University C)

E-learning technology is believed to be effective in improving teaching; however, heavier workloads and a lack of expertise are obstacles to digital classroom instruction.

4.2 The Impact of Technology Integration on Student-Centered Pedagogy for Teacher Education Students

Pedagogy is built through interactive activities in formal and informal settings, allowing students to learn independently on digital internet platforms. Based on the Semester Implementation Plan document, University A has an average score of 4.2 for integrating the use of technology in lectures, a score of 2.4 for teaching techniques, and a score of 2.5 for teaching materials in lectures. University B has a 3.8 average score in integrating technology in lectures, a 3.4 average score in teaching techniques, and a 2 average score in teaching materials in lectures. Then, University C has an average score of 4 in integrating the use of technology in lectures, 3.2 in teaching techniques, and 2.8 in teaching materials in lectures. Based on these findings (see Figure 2), teaching tasks must be planned with a student-centered perspective, and teaching materials must be innovative.

**Figure 2.** The comparison results in lecturers’ use of e-learning.

A lecturer demonstrated the necessity to update and revise conceptions and instructional techniques:
With new technological concepts, teaching strategies must be student-centered, especially when backed by inquiry and learning reflection. (Lecturer from University C)

Other lecturers further mentioned that ICT facilities and infrastructure have been constructed for the university’s comprehensive higher education setting, enabling lecturers to adopt technology-integrated teaching in the university environment.

As a result, there is a pressing need to update pedagogy with online learning resources, and lecturers must adjust their teaching approaches. (Lecturer from University A)

We use creative teaching with technology, but students must still take a written final exam. Although pedagogy is intended to improve teaching, we still utilize traditional methods such as tests to meet curriculum goals and hence assess students. In terms of curriculum and assessment, digital teaching adheres to traditional teaching principles. (Lecturer from University B).

The results of the study indicate that teaching involves the capacity to understand students, design and carry out lessons, assess learning objectives, and help students reach their maximum potential.

4.3 The Use of Flipbooks and E-Learning to Improve English Skills for Teacher Education Students

English is the major language of communication and is almost a necessity if students later want to compete for international jobs. English is required by the international market in the workplace and cannot be neglected by students since it can enhance the career prospects of elementary school teacher education students after graduation, enabling them to teach in international schools. As a result, the lecture process must incorporate English language abilities.

<table>
<thead>
<tr>
<th>English Language Skill</th>
<th>Percentage</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing</td>
<td>30%</td>
<td>Strong</td>
</tr>
<tr>
<td>Listening</td>
<td>15%</td>
<td>Very weak</td>
</tr>
<tr>
<td>Speaking</td>
<td>20%</td>
<td>Weak</td>
</tr>
<tr>
<td>Reading</td>
<td>35%</td>
<td>Strong</td>
</tr>
</tbody>
</table>

English language skills reveal the recommended students’ weaknesses. The evaluation results indicate that writing is at 30%, listening at 15%, speaking at 20%, and reading at 35%. These results demonstrate weaknesses, particularly in the listening and speaking sections. The results further indicated that the respondents’ internal and external influences were mostly positive. English skills of 30 students (out of a total of N=30) were taught independently. Reading and writing are the most commonly acquired English abilities.

Consequently, an intervention capable of bridging and developing English language skills is required. Based on the interview results, learning media has an impact on assisting students in demonstrating materials or materials to create an effectively used teaching and learning process to aid students in making the learning process more effective and efficient. A student stated that:
I like English lectures because of the fun way the lecturers teach, the variety of methods used by the lecturers, and the enjoyable learning atmosphere. (Student from University B)

Another student further said:

Learning English is still being studied separately; my weakness is speaking. We study only from lecture modules. (Student from University B)

In practice, English courses are frequently understood and implemented in different manners. Some see it as a course that includes broad English material, incorporating fundamental knowledge of general English with its various elements and skills. On the other hand, a student claimed that:

This course is a special-purpose course tailored to the student’s field of study, even if in practice it does not always represent its essence as a topic studied for a specific purpose. (Lecturer from University A).

5. Discussion

This study investigates the pedagogical perspective associated with utilizing digital technologies in English teaching. The results are used to address the following three major issues: (1) the lecturers’ and students’ perception of flipbooks and e-learning in enhancing English learning for teacher education students, (2) the influence of technology integration on student-centered pedagogy for teacher education students, and (3) the use of flipbooks and e-learning to improve English skills for teacher education students. Previous research (Andriani et al., 2023; Saputri et al., 2022; Suyasa et al., 2023) has explained that the use of flipbooks can improve a student’s understanding and memory of the material, thus becoming a learning tool that facilitates lifelong learning for individuals in the digital era. Other research (Dharmayanti et al., 2021; Lestari et al., 2022) also states that flipbooks can increase creativity, and visual abilities, and develop critical thinking skills, and fine motor skills. The relationship between flipbooks and e-learning is significant.

Flipbook innovation and e-learning are two technologies that can be used together to enhance interactive learning experiences. Interactive tools can enhance the learning experience on e-learning platforms. Studies conducted by Makhroji et al., (2023) and Sa’adah et al. (2022) also suggest that flipbook creation can be enhanced to boost the efficacy of virtual education.

E-learning is a form of online learning that utilizes digital technology to deliver learning material. With e-learning, students can access learning material from anywhere and at any time and have the flexibility to study the material at their own pace. By combining flipbooks and e-learning innovations, users can create a more engaging, interactive, and accessible learning experience (Azzahra & Arrasyid, 2023; Evenddy et al., 2021).

With flipbooks, English learning material can be presented in a visual and attractive format, while e-learning allows students to access the material online, helping to expand the reach of learning. This can improve learning efficiency and give students a more pleasurable learning experience (Astutik et al., 2022; Perdana et al., 2021; Rahayu et al., 2021). Learning content can be delivered in a more engaging, dynamic, and efficient manner by combining flipbooks, e-learning, and pedagogy. The
topics being taught can be simpler for students to understand, and learning will proceed more smoothly and efficiently.

6. CONCLUSION

The findings of this study show the positive perceptions of both lecturers and students towards the use of flipbooks and e-learning in enhancing English learning for elementary school teacher education students. Flipbooks are viewed as effective tools for presenting complex concepts engagingly and interactively, while e-learning offers accessible and diverse learning resources that support the development of digital skills. The integration of technology in teaching techniques and materials was found to significantly influence student-centered pedagogy, though it also presents challenges such as technical issues and increased workload for lecturers. Additionally, the study identified weaknesses in students’ listening and speaking skills, emphasizing the need for innovative interventions to improve these areas. Overall, the research suggests that combining effective teaching methods and digital media can enhance English language skills and support a more engaging and efficient learning process.

Different universities and different locations may have different policies and procedures regarding the use of technology in the classroom and within the institution. The results of the interviews may also have been skewed by the presence of lecturers who supported and opposed digital environment pedagogies. Finally, interpretation can be slightly impacted by the reflexivity of the researchers. This study shows that lectures are weighed down with anxiety about digital technology use, which is caused by unanticipated technological failure. Therefore, more research is highly recommended.

Future research might investigate ways to lessen psychological distress and technological failure in various circumstances. Additionally, this study suggests that social constructivism encourages classroom instruction. More research should examine the application of social constructivism theory to better pedagogical outcomes. Finally, flipbooks and e-learning allow students to learn in a flexible environment, which calls for better levels of learning skills, according to the analysis of this study. Additional research needs to expose students to higher-order cognitive thinking and offer teaching opportunities that foster higher-order thinking.

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