



DIGITAL FLASHCARDS FOR HOSPITALITY ENGLISH VOCABULARY LEARNING: A STUDY AT POLITEKNIK NEGERI SRIWIJAYA

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ABSTRACT

This study aimed to examine the effectiveness of research-based digital e-flashcards in enhancing vocabulary acquisition among English for Hospitality students at the Polytechnic level. Employing a one-group pretest–posttest research design, the study involved sixth-semester students enrolled in the Diploma III (D3) English Study Program at Politeknik Negeri Sriwijaya. The instructional materials incorporated hospitality-specific vocabulary to promote contextualized language learning through digital flashcards. Data were collected using vocabulary achievement tests administered before and after the intervention. The findings revealed a substantial improvement in students' vocabulary mastery, with the mean score increasing from 65 on the pretest to 85 on the posttest. These results suggest that digital flashcards effectively facilitate vocabulary learning by integrating active recall, spaced repetition, and contextualized practice. Consequently, the study highlights the potential of technology-enhanced instructional tools to strengthen vocabulary development and better prepare vocational students for effective communication in professional hospitality settings.

Keywords: *digital flashcards, English learning, hospitality students, vocabulary learning, vocational education.*

1. INTRODUCTION

English plays a pivotal role in the tourism sector as it facilitates service delivery to international visitors, promotes tourism products in the global marketplace, and enables the effective dissemination of information (Kurniawan, 2024; Kusuma, 2023; Malini et al., 2022). Within the hospitality industry, communication constitutes a core professional responsibility, as employees are expected to interact with guests from diverse linguistic and cultural backgrounds. Consequently, communicative competence in English is indispensable because the quality of hospitality services largely depends on successful interactions

between service providers and customers (Byram, 2020; Findıklı, 2023; Thabit & Ahmed, 2018). This highlights the necessity for hospitality students to develop strong English language proficiency in preparation for careers in hotels, restaurants, tourism agencies, airports, and other customer-oriented service industries.

Among the various components of language proficiency, vocabulary knowledge has long been recognized as one of the most fundamental elements of successful language acquisition. According to Nation (2013), an adequate vocabulary repertoire is essential for effective communication, as it underpins the development of listening, speaking,

Vol 9, No 2 (2026): ESTEEM

reading, and writing skills. Vocabulary enables learners to comprehend spoken and written texts, express ideas accurately, respond appropriately in interpersonal communication, and perform effectively in professional environments (Hadiwijaya, 2020; Lesiana et al., 2023; Jaya et al., 2025). Conversely, learners with limited lexical knowledge frequently encounter difficulties in both understanding messages and conveying their intended meanings.

Despite its importance, vocabulary acquisition remains one of the most challenging aspects of English as a Foreign Language (EFL) learning (Aljburi & Khaghaninejad, 2024; Almusharraf, 2021; Rouhani & Modarresi, 2023). Many learners struggle to retain newly acquired lexical items, apply them appropriately in authentic contexts, and maintain long-term vocabulary retention. Conventional instructional practices, such as rote memorization and direct translation, often fail to foster meaningful vocabulary learning because they encourage passive rather than active engagement. Santos et al. (2016) argue that vocabulary development requires repeated exposure to lexical items across multiple contextual situations, enabling learners to establish deeper semantic understanding and strengthen long-term memory.

These challenges become even more pronounced in vocational education, particularly in hospitality polytechnics, where students are expected to master both general English and occupation-specific vocabulary. Hospitality learners must acquire lexical knowledge related to customer service, hotel operations, tourism, food and beverage services, reservation systems, and event management. Since English for Specific Purposes (ESP) emphasizes practical communication in professional settings, vocabulary instruction should be contextualized and closely aligned with authentic workplace situations to ensure that learners can apply their knowledge effectively in real-world interactions.

Recent advances in educational technology have transformed vocabulary instruction by providing innovative and

learner-centered approaches that support language acquisition (Fitriani et al., 2025; Zhang, 2022; Qassrawi et al., 2024). Technology-enhanced learning environments offer flexible, interactive, and engaging opportunities that encourage learner autonomy while increasing motivation. Among the various digital learning tools available, digital flashcards have emerged as one of the most widely adopted resources for vocabulary learning. Unlike traditional paper-based flashcards, digital flashcards integrate multimedia elements such as images, audio recordings, animations, immediate feedback, and spaced repetition techniques, thereby creating a richer and more interactive learning experience.

A growing body of empirical evidence supports the effectiveness of digital flashcards in improving vocabulary acquisition, retention, and learner motivation (Xodabande et al., 2024; Yasar & Kocoglu, 2025). Xodabande et al. (2024) demonstrated that learners who utilized digital flashcards significantly outperformed those who relied on conventional vocabulary lists in terms of vocabulary retention. Similarly, Yasar and Kocoglu (2025) found that integrating digital flashcards through Quizlet with principles of self-regulated learning (SRL) enhanced long-term vocabulary retention while simultaneously fostering learner autonomy within technology-mediated language learning environments.

Building upon these findings, the present study developed research-based digital flashcards specifically designed to facilitate hospitality-related vocabulary learning. The instructional materials incorporated lexical items and expressions commonly encountered in hotel reception, guest relations, reservation services, tourism activities, transportation services, and customer interactions. By embedding vocabulary within authentic professional contexts, the digital flashcards were intended to promote meaningful learning experiences and increase the relevance of vocabulary instruction to students' future careers in the hospitality industry.

The participants of this study were sixth-semester students enrolled in the Diploma III English Study Program at Politeknik Negeri Sriwijaya (Polsri). Prior to participating in the study, these students had completed several hospitality-related courses, including MICE, Front Office, Hotel Management, and Hospitality and Tourism Translation. Furthermore, they had undertaken internships in various hospitality institutions, including hotels, airports, and PT Kereta Api Indonesia (PT KAI). Although these experiences provided substantial exposure to professional hospitality environments, further development of specialized English vocabulary remained necessary to strengthen their communicative competence in workplace settings.

Based on the foregoing considerations, this study investigates the effectiveness of research-based digital flashcards in enhancing hospitality students' English vocabulary mastery. Specifically, the study addresses the following research question:

To what extent can research-based digital flashcards enhance students' English vocabulary mastery within the context of hospitality education?

The findings are expected to contribute to the development of technology-enhanced vocabulary learning strategies in vocational education, particularly within hospitality programs. Moreover, the study may provide valuable pedagogical insights for English lecturers seeking to design contextualized digital learning materials that address the specific linguistic demands of the hospitality industry. Previous studies have consistently demonstrated that technology-supported and context-based vocabulary instruction positively influences learners' motivation, engagement, and long-term vocabulary retention (Xodabande et al., 2022; Yasar & Kocoglu, 2025), and the present research seeks to extend this line of inquiry within the context of hospitality education.

2. LITERATURE REVIEW

Vocabulary Learning in EFL Contexts

Vocabulary is commonly acknowledged as one of the bases of language learning as it facilitates communication and understanding in all the language skills (Thi & Que, 2025; Oktari, 2024; Isgiaro et al., 2020). Students with a wide vocabulary know how to read more efficiently, communicate in discussions, and communicate ideas clearly. Vocabulary knowledge has many aspects such as word meaning, pronunciation, spelling, grammatical function, collocation and contextual usage (Nation, 2013; Ajisoko, 2020; Loewen et al., 2020). Learning vocabulary, thus, cannot be confined to memorizing individual words but should include the knowledge of the use of words in various contexts.

An EFL setting typically provides the learner with a restricted amount of authentic English communication. This makes it harder for students to learn words in English, as they don't see many words of English in their surroundings outside the classroom. According to Santos et al. (2016), learning vocabulary means that the words should be met again and again in meaningful contexts in order to make them permanent in the learners' minds. Some students tend to forget words they have just learnt without practising them in context.

There is also receptive and productive knowledge in the learning of vocabulary. The special distinction made between receptive and productive vocabulary is that receptive vocabulary is one that can be recognized and understood by the learner when reading or listening, while productive vocabulary is one that can be used by the learner in speaking and writing. Vocabulary instruction, therefore, should afford opportunities to practice vocabulary in authentic communication.

Another important factor in vocabulary learning is motivation of the learner(s). Active and motivated learners are more likely to be actively involved in vocabulary practice and independent learning activities. Lee et al., (2022) underscore the

Vol 9, No 2 (2026): ESTEEM

importance of motivation in vocabulary learning as learners have to make the effort and practice self-regulation to acquire vocabulary mastery. The use of technology-assisted learning tools can motivate learners because more interaction and fun are added to the learning process.

In addition, repetition and retrieval practice play a key role in the learning of vocabulary. Studies in cognitive psychology have shown that repetition of retrieval helps to retain information. So, any vocabulary learning approach that engages in active recall and spaced repetition is regarded as very effective. Digital flashcards have been found to be especially useful in this regard as they allow for repeated exposure and retrieval learning.

Digital Flashcards in Vocabulary Learning

Flashcards have been a vocabulary learning strategy for a long time due to the active recall and repeated practice. Typical flashcards are cards with words on the front and definitions/explanations on the back. As technology advanced, flashcards have transformed into their electronic equivalents with extra features like audio pronunciation, images, animation, quiz systems, and spaced repetition systems.

Digital flashcards are very effective, as they incorporate a few of the principles of language learning and cognitive psychology (Febriyanti, 2022; Novak et al., 2023; Rose & Meyer, 2019). Active recall" is one important principle; it's the ability to retrieve information from memory. Active recall is more effective at supporting memory retention than passive review. An important principle is spaced repetition, which means that you are repeatedly exposed to those vocabulary items at a certain time frame, so that you do not forget.

According to Nation (2013), vocabulary learning using word cards is one of the activities that can be used to build vocabulary as it is a repetition activity where the learner repeatedly retrieve and review vocabulary items. Digital flashcards take this

one step further by scheduling automated reviews and offering multimedia support.

A number of research investigations have proved the effectiveness of digital flashcards in language learning. In the context of vocabulary learning, Boroughani et al. (2023) investigated the possibility of learning with Quizlet as a mobile platform against learning with traditional word lists and concluded that the students who learned with the Quizlet platform had significantly higher academic vocabulary gains and higher self-regulatory capacity compared to the students who learned with the traditional word lists. Likewise, Xodabande et al. (2024) studied the effect of using digital flashcards on mobile devices for academic vocabulary learning and concluded that the use of digital flashcard on mobile devices yielded significantly higher scores on vocabulary learning outcomes and higher engagement compared to flashcards and word list. In addition, Yasar and Kocoglu (2025) examined the effectiveness of Quizlet as a self-regulated learning tool and found that self-made digital flashcards had a significant impact on students' vocabulary development, vocabulary retention and self-regulated learning. In combination these studies emphasize the potential of digital flashcards as a tool for vocabulary learning, along with facilitating learner autonomy and SRL.

In addition to supporting self-regulated learning, digital flashcards can help students understand the vocabulary by integrating multimedia. Digital flashcards can include images, audio pronunciation, example sentences, and other interactive elements that offer learners a variety of inputs, which is not possible with paper-based flashcards. The inclusion of these multimodal elements allows learners to understand the meaning, pronunciation and use of words, to improve the acquisition and retention of vocabulary.

The efficacy of the use of multimedia-enhanced digital flashcards can be attributed to Mayer's Multimedia Learning Theory which states that when verbal and visual information are presented together, the learners will process and understand the

Vol 9, No 2 (2026): ESTEEM

information more effectively. Digital flashcards offer a combination of text, images and sounds, which helps to minimize cognitive load and facilitate meaningful learning. Therefore, it is possible to enrich the digital flashcard with multimedia features to be able to produce the rich learning experience and better in vocabulary learning.

Technology in Hospitality English Learning

Technology in English language teaching has become increasingly significant particularly in the field of Vocational and Professional education. Practical communication skills are needed for Hospitality education, which must be aligned with industry requirements. Thus, learning facilities equipped with technology can offer real and contextualized learning experiences.

Hospitality English falls under the category of English for Specific Purposes (ESP) which is the usage of English in specific fields. ESP learning focuses on context-based communication, job-specific words. Hospitality students should be able to acquire vocabulary in the areas of guest services, reservations, food and beverage management, tourism activities, transportation and customer relations.

There are some studies that show that technology learning environment can enhance the engagement, motivation, and communication skill of the learners. Godwin-Jones (2017) states that digital tools enable students to experience real-life learning scenarios. Technology can also help act as a link between classroom and practice. Likewise, Rahmawati et al. (2022) conducted a literature study on 25 articles published in the period 2015-2025, which revealed that using Information Technology tools such as Computer-Assisted Language Learning and Mobile-Assisted Language Learning was effective in improving language learning with learners' engagement, motivation, and language skills.

Digital flashcards are especially relevant to learning words in the hospitality industry as well as situational dialogues. For

instance, the vocabulary required for making hotel reservations, checking in, airport services or restaurant communication could be introduced in context, with the help of multimedia. This contextualization allows learners to link the learning of the words to authentic work situations.

Additionally, students in the hospitality sector may need alternative learning approaches since vocational education involves hands-on experience and internships. Mobile-assisted vocabulary learning can be used to enable students to keep on learning independently in internships or during out-of-class time. Therefore, digital flashcards can be used to promote ongoing language growth.

Previous Studies

There have been many studies that have shown that digital flashcards are a great help when it comes to vocabulary learning. According to Boroughani et al. (2023), Quizlet-based mobile vocabulary learning outperformed the traditional word lists in enhancing students' academic vocabulary learning and self-regulation. Similarly, Xodabande et al., (2022) reported that digital flashcards were useful in improving university students' academic vocabulary learning in terms of vocabulary retention and boosting the learners' motivation to learn by providing flexible access to learning materials using mobile devices.

The importance of using multimedia learning to acquire vocabulary has also been highlighted in other studies (Wiwin et al., 2022; Firdaus & Firdaus, 2024; Fauziyah et al., 2023). Educational studies show that learners' understanding of the meaning and pronunciation of vocabulary words is improved with the visual and auditory support. In addition, the use of technology to learn vocabulary makes the learning process interactive and fun, so that learners' interest in learning is increased.

While there are numerous studies on digital flashcards in general EFL setting, few studies have been conducted on the use of digital flashcards in the context of hospitality

Vol 9, No 2 (2026): ESTEEM

polytechnic students. Hence, this study will add to the literature by exploring the use of research-based digital flashcards in a vocational education setting in the context of the hospitality industry.

3. METHODS

Research Design

The research approach in this study was quantitative with a pre-experimental research design namely one group pre test/post test design. The design was chosen to discuss the results of students' learning of improving the vocabulary before and after the use of digital flashcards. With this design, students' mastery of vocabulary can be measured systematically, through the comparison of the pretest and post-test results after the process of treatment.

This design has been widely adopted in educational studies to assess how well an instructional intervention is effective in enhancing students' learning outcomes.

Research Participants

The subjects in this study were students of the Diploma III (D3) English Study Program of Politeknik Negeri Sriwijaya (Polsri) class VI semester. The participants were selected purposively as they had already undergone a number of hospitality related subjects and internship programs related to the tourism and hospitality industry.

Courses the students studied include Meetings, Incentives, Conferences and Exhibitions (MICE), Front Office, Hotel Management, Hospitality and Tourism Translation and Tourism Communication. Besides, they had been doing internships in railway services like PT Kereta Api Indonesia (PT KAI), airport, and hotel. These academic and practical experiences allowed students to be familiar with the context of communication in the hospitality industry and familiar with terms in the industry.

The target group of participants were vocational learners whose English language

needs were for practical use in their future job situations. Hence, the mastery of vocabulary was deemed as important to ensure their readiness in communicating in work.

Research Instruments

The instruments employed in this study were a vocabulary test and digital flashcards. Vocabulary test was employed as a pre and post test to determine the students' vocabulary mastery before and after the application of digital flashcard. The test comprised hospitality-related vocabulary items in the form of multiple choice, matching, sentence completion and contextual vocabulary usage. The vocabulary covered aspects of professional hospitality communication, such as hotel booking, guest services, travelling services, the tourism activity and restaurant communication.

The second instrument was the Digital Flashcard which served as the treatment media in the study. The flashcards are the learning products created as a result of research for learning English, focusing on words in the hospitality sector. Vocabulary words, definitions, pronunciation assistance, pictures and sentences in a hospitality context were provided on each flashcard. The flashcards also incorporated active recall and repeated review to further enhance vocabulary retention.

Research Procedure

The research process was carried out in a number of stages. To assess the students' initial vocabulary mastery, the students were first given a pretest. The pretest data was used as baseline data in determining students' vocabulary competence at the start of the study.

The students were then given vocabulary learning sessions utilizing the digital flashcards after the pretest. At the implementation phase, students were asked to review the vocabulary, practise pronunciation and learn the vocabulary in a contextual situation in hospitality industry. The digital flashcards were utilized in the

Vol 9, No 2 (2026): ESTEEM

classroom during learning activities and also used for self-study outside the classroom. The lecturer also conducted discussions and did explanations about the use of vocabulary in professional hospitality communication.

After the implementation period, the students were given a post test, with similar vocabulary indicators as the pre test. The purpose of the posttest is to measure the improvement of students' vocabulary after students have used digital flashcard learning.

Data Analysis

Data collected were processed quantitatively by the descriptive statistical analysis. The analysis was done by determining the mean scores of the pretest and posttest to know the students' vocabulary improvement after using the digital flashcard. The results of the pretest and posttest were used to assess the effectiveness of the treatment in increasing the students' mastery of vocabulary in the hospitality Polytechnic.

4. RESULTS AND DISCUSSION

Results

The results of the study showed that the implementation of digital flashcards improved students' vocabulary mastery significantly.

Table 1 Students' Vocabulary Scores Before and After Treatment

Test	Mean Score
Pretest	65
Posttest	85
Improvement	+20

The data shows that after the students participated in vocabulary learning activities, the students obtained significant improvement. Pretest mean score of 65 indicated that students had moderate vocabulary mastery prior to treatment. The

post test mean score after implementation was 85, which shows that there was significant improvement in vocabulary acquisition.

The increase of 20 points shows that digital flashcards had a positive effect on students' vocabulary learning. Students demonstrated increased knowledge of hospitality vocabulary and vocabulary recognition and usage within appropriate contexts.

Classroom observations revealed that students were more engaged and motivated in vocabulary learning activities aside from the score improvement. Students actively engaged in recheck vocabulary, practice pronunciation and discuss about hospitality situation by using the target vocabulary.

Discussion

The results of this study showed that the use of digital flashcards was effective in improving the mastering of the vocabulary of English for Hospitality, students of the Diploma III English Study Program, the sixth semester at Politeknik Negeri Sriwijaya. The score on the pretest was 65 and the score on the posttest was 85, which shows that the use of digital flashcards was beneficial to students' vocabulary learning. This improvement indicates that the learning environment of the digital flashcards was effective for the students to learn and remember the words related to hospitality more efficiently than from conventional classroom learning alone. In the hospitality industry, students need to communicate accurately and confidently in a professional environment and building a vocabulary base is important to aid communication in the future.

The improvement seen in this study could be due to the learning principles used in digital flashcards. The digital flash card provides a way for people to actively retrieve words from their memory, as compared to the traditional way of presenting vocabulary list and having them memorize the words. This retrieval exercise enhances longer-term memory and helps students to identify and

Vol 9, No 2 (2026): ESTEEM

remember the word better. In addition, students were exposed to the target vocabulary again and again in the learning activities and they could review the vocabulary by multiple times until they knew the meaning and the usage. This repeated retrieval and exposure is believed to be a key aspect of effective vocabulary learning, as they can help limit forgetting and enhance vocabulary retention over time.

These results corroborate those of Nation (2013) who suggested that deliberate learning of words through repeated retrieval and review is an important factor in the acquisition of words. Nation (2013) found that it is better to present learners with target words repeatedly in meaningful learning activities instead of just memorizing. In the current study, the digital flashcards motivated students to interact with the hospitality words actively. They were able to review the different words, recall the meaning, and observe the word's context. Therefore, students could have a chance to enhance their receptive vocabulary (recognize vocabulary while doing reading activities) and their productive vocabulary (use vocabulary appropriately in hospitality communication).

We believe another important element that might have helped the students in improving their vocabulary was the use of multimedia in the digital flashcards. The electronic flashcards that were used in this study were different from traditional paper flashcards in that they included hospitality context example sentences, images and pronunciation support. The use of these media allowed students to acquire the vocabulary words through the use of various types of input other than written definitions. Images were used to link words to real-world hospitality examples and objects, with audio pronunciation to practice pronunciation of words, and contextual sentences to provide examples of how words are contextually used in professional communication. Therefore, students gained a greater appreciation for the definition and use of new vocabulary.

Mayer's Multimedia Learning Theory helps to explain how these

multimedia features are effective. Mayer is suggesting that meaningful learning is achieved when information is presented in both verbal and pictorial forms. Combination of vocabulary, images and sound are presented, which helps lower cognitive load as learners are presented with complementary information from different sensory modalities. This double processing helps to enhance understanding and retention. This study found that the use of the multimedia enriched digital flashcard enabled students to remember the word and visualize the situation in hospitality field where the words could be used. This contextual learning activity probably had a significant impact on the students' mastery of vocabulary.

The results of this study are in line with the previous studies on the effectiveness of digital flashcards in vocabulary learning. Boroughani et al. (2023) indicated that Quizlet-based mobile vocabulary learning proved more successful than traditional word lists in boosting students' academic vocabulary acquisition and self-regulatory skills. Likewise, Xodabande et al. (2022) revealed that digital flashcards contributed to the improvement of vocabulary retention and the motivation of learners in learning vocabulary through flexible access to learning materials on their mobile phones. Similarly, Yasar and Kocoglu (2025) illustrated that the use of self-made digital flashcards positively affected vocabulary learning, vocabulary retention, and autonomization. The high compatibility of the results with previous studies further validates the effectiveness of digital flashcards in vocabulary learning in various educational settings using technology.

While most of the previous studies primarily concentrated on general or academic English words, the present study expands the literature by using digital flash cards in the context of hospitality English. Words used in hospitality have significance different from those used in everyday language and include specialized terms that relate to hotel operations, guest services, reservations, tourism, transportation, restaurants, and guest communication. Thus, the students of hospitality need vocabulary

Vol 9, No 2 (2026): ESTEEM

learning materials which are not only words list but also words that are used in the workplace. Based on the positive results of this study, it can be concluded that digital flashcards could be an effective way to meet these English for Specific Purposes (ESP) needs by offering contextualized vocabulary learning experiences which can be related to future professional tasks.

The contextual nature of the digital flashcard is also suspected to have contributed to students' learning outcome. Vocabulary was not simply presented as words, but examples related to hospitality were used with each flashcard that represented real-life workplace scenarios. Students acquired the vocabulary by means of scenarios related to hotel check-in procedures, guest requests, restaurant services, travelling, and tourism activities. This contextualization helped the students to associate the new words with the words they have learned in the academic courses including Front Office, Hotel Management, MICE, Hospitality and Tourism Translation, and internship experiences in hotels, airports and railway services. This integration of classroom learning with real-world application most likely led to deeper learning of vocabulary and retention.

The quantitative results were complemented with classroom observations. In the use of digital flashcards, students seemed more interested and proactively involved in the activities of learning vocabulary. Their enthusiasm was evident when they were revising vocabulary, talking about hospitality, practising pronunciation, and doing retrieval-based tasks. The use of digital flash card vocabulary learning activities was found to elicit higher student participation since they are able to check their answers immediately after answering, repeat the difficult vocabulary by themselves, and keep track of their own learning process. The results of the observations are in line with Rahmawati et al. (2022) that technology-based language learning promotes learners' engagement, motivation and language development. The adaptability of Digital flashcards also allowed students to continue reviewing vocabulary outside of the

classroom on their mobile devices, so that students could learn continuously and independently.

Another significant consequence of the results has to do with the autonomy of the learner. Use of digital flashcards enabled students to find out when, where, and how often they reviewed vocabulary. This flexibility facilitated the students' greater responsibility in managing their learning process, an important aspect of self-regulated learning. Students were able to repeatedly access vocabulary without relying on teacher explanation when needed. This kind of learning behavior is especially useful for vocational education students, who often have opportunities to intern and/or undergo field practice, which demands continuous language learning outside of the classroom. Thus, digital flashcards do not only benefit students' mastery of the words but also help them develop lifelong learning skills, which is important for their future professional growth.

The results also have significant implications for English teachers, especially those in English for Specific Purposes courses for the hospitality sector. Instead of mainly using documents with lists of words or, just as for the textbook, exercises for vocabulary, teachers may want to think about adding digital flashcards to vocabulary lessons to make them more interactive and learner-centred. Digital flashcards are easily adaptable to hospitality language, professional terms and phrases, pictures, audio pronunciations, and workplace scenarios. The contextualized learning materials can be used to narrow the gap between learning in class and communication in workplace, and boost the students' motivation to learn.

However, there are some caveats to note. The first is that a one-group pretest-posttest design without a control group was used in this study, which made it challenging to explain that all the increase in vocabulary stems from the use of digital flash cards. Secondly, the subjects were taken from one study program at one Polytechnic, thus the results of the study may not be generalized to

Vol 9, No 2 (2026): ESTEEM

other educational situations. Third, the study focused on short-term gains in vocabulary rather than long-term retention of the vocabulary post intervention.

Future research is thus suggested to be conducted using an experimental or quasi-experimental design with a control group and bigger sample of participants from various vocational schools. The long-term effects of digital flashcards on vocabulary retention can also be examined, and its influence on other language abilities (speaking, listening, reading, and writing) can be explored. Further research might also be conducted to explore the efficacy of various digital flashcard platforms, to explore the use of learner-generated flashcards, or to explore the potential use of AI and spaced repetition systems to improve hospitality vocabulary learning. This type of research would help to better understand the use of digital technology for ESL instruction and vocational language education in general.

5. CONCLUSION

The present study was the implementation of Digital Flashcard to improve students' mastery in learning English vocabulary in the hospitality learning context at the sixth semester students of the Diploma III English Study Program of Politeknik Negeri Sriwijaya. The study employed a pre-experimental one-group pretest-posttest design and revealed the progress in vocabulary mastery of students after implementing digital flashcards, which is indicated by the increase of the mean score of students from the pretest to the posttest. The results indicated that the digital flashcard is an effective learning media for technology-assisted learning which involves active recall, repeated practice, use of media and contextualized hospitality vocabulary. These characteristics will help learners learn and retain the vocabulary as well as encourage learner engagement and self-learning. The study adds to the existing literature on technology in language learning in general and in English for Specific Purposes (ESP) in particular, and it shows how digital flashcards can be used as a didactical tool for teaching ESP, especially for business and

hospitality students who need to learn the vocabulary in context to prepare themselves for business communication.

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Vol 9, No 2 (2026): ESTEEM

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