

The Effectiveness of Digital Media on Students' Language Competence at Manado State Polytechnic

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ABSTRACT

This study analysed the effectiveness of digital media use in enhancing students' language competence at Manado State Polytechnic, with a focus on mastery of Indonesian and English as essential competencies for academic contexts and workplace readiness. The study employs a qualitative approach with a descriptive-exploratory design to obtain a comprehensive understanding of students' learning experiences, patterns of digital media use, and their implications for the development of language skills. Research subjects were determined through purposive sampling, in which students were selected to represent each department at Manado State Polytechnic based on specific criteria, such as their level of engagement in digital media use and their language communication ability. Data were collected through in-depth interviews, participatory observation, and documentation studies of learning activities. The outcomes of this study include a clear picture of the effectiveness of digital media use in language learning and the identification of factors influencing its success, covering pedagogical, technological, and student-related aspects. In addition, this study provided practical contributions for educators in systematically and contextually designing, selecting, and integrating digital media into the language learning process. Thus, the findings of this study can serve as a reference for developing adaptive and innovative digital-based learning strategies oriented toward improving students' communication competence in vocational education settings.

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KEYWORDS

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1. Introduction

The development of digital technology has brought significant changes to the world of education, particularly in the language learning process at universities. Digital transformation enables the use of various media, such as learning applications, e-learning platforms, videos, and social media, which can make learning higher in quality, more flexible, interactive, and responsive to students' needs. In the context of vocational education, such as at Manado State Polytechnic, language proficiency—particularly in English and Indonesian—has become an important competency for improving graduates' competitiveness in the workforce. Digital media such as learning applications, interactive videos, and online platforms also allow students to access materials anytime and anywhere, thereby overcoming the limitations of space and time in conventional learning (Suryanti et al., 2024; Aswad et al., 2019; Rahman et al., 2019; Nahdhiyah et al., 2022).

Digital media in the context of this study refers to the applications, platforms, or forms of e-learning used to search for, access, or deliver information in the process of learning English and Indonesian. The digital media used in language learning vary widely; one study revealed the predominant use of various types of digital learning media, with Google Classroom, YouTube, Moodle, Zoom, WhatsApp, Edmodo, video blogging, and Instagram being widely used (Nugroho, 2024). Digital media plays an important role in improving language skills, learning motivation, and student engagement (Cahyani, 2024; Yaumi et al., 2023; Andini et al., 2026). This is in line with what Melati stated in her research, that digital media provides unlimited access to diverse learning resources, ranging from e-books, learning videos, and language applications, to online discussion forums (Melati, 2024).

Nevertheless, the implementation of digital media in language learning still faces various challenges, such as limited digital literacy and the absence of a systematically integrated learning model. In addition, not many studies have specifically examined the effectiveness of digital media on students' language competence in the context of vocational education,

particularly at Manado State Polytechnic. The researcher therefore decided to investigate this issue in order to improve learning effectiveness, as it has been stated that learning effectiveness can be achieved, among other ways, by using instructional media in a learning process suited to the situation and conditions, both in terms of material content and students' environmental circumstances (Adikara et al., 2022; Said et al., 2021; Anggawirya et al., 2021; Pratiwi et al., 2026). Reski, in her research, also stated that digital media not only provides authentic learning resources but also enhances interactivity between lecturers and students (Amalia et al., 2025a). Through the use of media, students have the opportunity to practice in a low-pressure environment, which gradually improves their ability to communicate effectively in the assessment of speaking skills (Rut et al., 2024).

This study addresses two main research questions concerning the use of digital media in language learning. First, it investigates how effective digital media is in improving students' language competence. Second, it examines the factors that influence the effectiveness of digital media in improving students' language competence. These questions are intended to provide a comprehensive understanding of both the contribution of digital media to language learning and the conditions that shape its effectiveness.

Accordingly, the objectives of this study are to investigate the effectiveness of digital media in improving students' language competence and to explore the factors influencing its effectiveness. By addressing these objectives, the study seeks to provide insights into how digital media can be appropriately utilized to support language learning and enhance students' language competence. The approach used in this study is a qualitative approach, aimed at gaining an in-depth understanding of the use of digital media in the language learning process. This approach is consistent with previous research on the use of digital media in English language learning, which showed that digital media plays an important role in enhancing student interaction and engagement (Amalia et al., 2025).

2. Methodology

The approach used in this study is a qualitative approach, aimed at gaining an in-depth understanding of the use of digital media in the language learning process. This approach is consistent with previous research on the use of digital media in English language learning, which showed that digital media plays an important role in enhancing student interaction and engagement (Amalia et al., 2025b).

The population of this study consists of all students at Manado State Polytechnic who are studying English and Indonesian. The research sample was determined through purposive sampling, in which students were selected to represent each department at Manado State Polytechnic based on specific criteria, such as their level of engagement in digital media use and their language communication ability.

The following is the data collection procedure. Data were collected through several techniques, as follows:

- In-depth interviews to explore the experiences, perceptions, and views of students and lecturers regarding the use of digital media in language learning.
- Direct observation of the learning process to identify the implementation of digital media use in the classroom.
- Documentation, including the collection of teaching materials, recordings of the learning process, and data on the use of digital platforms.
- Data collection was carried out repeatedly until reaching data saturation, that is, the point at which no new significant information is found.

Data analysis was conducted by identifying, categorizing, and interpreting the main themes that emerged from the data. This process involved transcribing the interviews by listening to the interview recordings and converting them into text form, which helped the researchers in drawing conclusions. Conclusions were drawn by summarizing the overall results of the analysis, reflecting all the observation and interview results obtained by the research team.

3. Results and Discussion

The findings related to the first research question, "How effective is digital media in improving students' language competence?", indicate that digital media contributed positively to students' language competence across speaking, listening, reading, writing, and vocabulary development. However, the degree of effectiveness varied according to the language skill being developed, the type of digital media employed, and the extent to which students were actively engaged with the learning activities. The findings from interviews, classroom observations, and document analysis suggest that

digital media was particularly effective when it was integrated into purposeful, practice-oriented tasks rather than used merely as a source of information.

3.1 Speaking

Digital media appeared to be particularly effective in supporting students' speaking development. The use of video-based materials provided students with concrete models of pronunciation, expressions, conversational patterns, and appropriate responses in different communicative situations. Rather than relying exclusively on written examples in textbooks, students were able to observe how English expressions were actually produced and used in spoken interaction.

One of the most meaningful activities involved students watching selected video segments and subsequently producing their own group videos. The process required students to repeatedly practise and rehearse dialogues before recording their final performance. Repetition became an important mechanism through which students gradually improved their fluency. During classroom observations, students were seen repeating particular lines and scenes several times before producing the final version of their videos. This repeated practice allowed them to become more familiar with vocabulary, sentence patterns, pronunciation, and conversational sequences.

The video-production activity also appeared to influence students' confidence. Students who initially hesitated to speak English became more willing to participate after repeatedly practising their assigned dialogue. The relationship between fluency and confidence was particularly evident because students reported that becoming more familiar with the dialogue reduced their hesitation when speaking. Thus, digital media did not merely provide students with exposure to spoken English but created opportunities for repeated and meaningful speaking practice.

A student interview indicated that repeated practice through video production helped them become more fluent and confident in delivering conversations. As MHN said that when I made a Video I always repeats the sentences because I want to make sure that I pronounce it well and it will make me confidence to show my video to others. This finding is also supported by classroom observation, which showed increased student participation during video-based speaking activities compared with activities that relied primarily on written exercises.

3.2 Listening

Digital media also played an important role in developing students' listening competence. Students reported receiving listening input from a variety of digital sources, particularly YouTube videos, podcasts, and learning resources provided by the British Council. These resources exposed students to spoken English in different voices, speaking rates, accents, and communicative contexts.

The findings indicate that listening competence did not improve immediately for all students. Some students initially experienced difficulty understanding spoken English, particularly when speakers talked rapidly or when unfamiliar vocabulary occurred in the audio. However, repeated exposure gradually helped students become more accustomed to listening to English.

For example, student AN explained that they initially felt confused when listening to English materials, but after repeatedly engaging with listening activities, they gradually became accustomed to the speech. "Honestly I always confuse when the first time listen the recording ding or the English video", AN said.

3.3 Reading

Digital media contributed to students' reading development by providing access to a wider range of English-language materials than those available in conventional classroom resources. Online articles, digital texts, learning websites, and other electronic materials enabled students to encounter English in more varied and authentic contexts.

The use of digital reading materials encouraged students to identify information, interpret meaning from context, and search for unfamiliar vocabulary while reading. Compared with printed materials that generally provided a fixed text, digital resources allowed students to access additional explanations, definitions, examples, and related information when they encountered difficulties.

Students' reading engagement was also influenced by the accessibility and relevance of the materials. Texts related to everyday communication, technology, business, and students' academic interests tended to be easier for students to engage with because they could connect the content with situations familiar to them. In this context, digital media functioned not only as a delivery channel but also as an extended learning environment in which students could independently access additional reading materials.

However, the findings suggest that reading effectiveness was influenced by students' ability to manage digital information. Some students tended to depend heavily on online translation tools when encountering unfamiliar words or sentences. While these tools helped students understand difficult texts, excessive dependence could reduce opportunities for students to infer meaning independently. Therefore, lecturer guidance remained important in ensuring that digital reading activities developed reading comprehension rather than simply translation behaviour.

3.4 Writing and Vocabulary

Digital media also supported the development of students' writing competence and vocabulary. Digital platforms enabled students to encounter new vocabulary repeatedly through videos, online texts, communication platforms, and other learning materials. Vocabulary encountered in meaningful contexts was more readily connected to particular situations and communicative purposes than vocabulary presented as isolated word lists.

The findings suggest that vocabulary development was closely connected to the other language skills. For example, students encountered unfamiliar expressions while watching videos, attempted to understand their meanings during listening activities, reused them during speaking practice, and incorporated some of them into written tasks. Consequently, digital media created opportunities for vocabulary to be encountered and reused across different modes of communication.

In writing activities, students were able to use digital resources to obtain examples of expressions, check word meanings, and revise their written work. Digital writing tools also made the revision process more accessible because students could edit their texts repeatedly before submitting or presenting them. This was particularly useful when students were required to produce communicative texts rather than simply answer grammar exercises.

The findings related to the second research question, "What factors influence the effectiveness of digital media in improving students' language competence?", indicate that three interrelated categories influenced the effectiveness of digital media: pedagogical factors, technological factors, and student-related factors. These factors did not operate independently. Instead, their interaction determined whether digital media functioned as an effective learning resource or merely as an alternative means of delivering instructional materials.

Table. 1 Factors Influencing the Effectiveness of Digital Media

Factor	Key Findings
Pedagogical Factors	Effectiveness depended on alignment with learning objectives, purposeful task design, lecturer guidance, and feedback.
Technological Factors	Effectiveness was influenced by internet connectivity, device availability, platform accessibility, usability, and the suitability of media for the targeted language skill.
Student-Related Factors	Effectiveness was influenced by digital literacy, motivation, self-regulation, prior language proficiency, and active participation.

Pedagogical factors emerged as one of the most important determinants of effectiveness. The findings indicate that digital media was more beneficial when the media was directly aligned with the learning objectives and supported by clearly structured tasks.

Technological conditions also influenced students' ability to benefit from digital media. Internet connectivity, device availability, platform accessibility, and the usability of digital resources affected the continuity of learning activities. Although students were generally able to access video and online learning materials, the quality of their learning experience depended on whether the required digital resources could be accessed smoothly. Problems such as unstable internet connections, slow loading, limited device capacity, or difficulties accessing particular platforms could interrupt learning activities and reduce students' concentration. The fact that happen in Business Administration is the unstable internet connection which make the students cannot access some material directly.

Student-related factors constituted the third major category. These included students' motivation, digital literacy, self-regulation and willingness, and also prior language proficiency to participate actively in digital learning. Motivation was also strongly connected to effectiveness. The use of video and other interactive media made some learning activities more engaging because students could see concrete examples and participate in creative tasks. The opportunity to produce and present their own videos, for example, gave students a clear purpose for practicing English.

4. Conclusion

The findings indicate that digital media positively contributed to students' language competence across speaking, listening, reading, writing, and vocabulary development. Its effectiveness, however, varied depending on the language skill, type of digital media, and level of student engagement. Digital media was particularly effective when integrated into purposeful and practice-oriented activities. Video-based activities supported speaking development by providing models of pronunciation and communication while repeated rehearsal and video production improved students' fluency, confidence, and participation. YouTube, podcasts, and other digital resources supported listening through repeated exposure to different voices, accents, and speaking rates. Digital reading materials expanded students' access to authentic English texts and supported independent vocabulary exploration, although excessive reliance on translation tools could reduce independent comprehension. Digital media also supported writing and vocabulary development by providing opportunities to encounter, reuse, and revise language in meaningful contexts.

The findings further identified three interrelated factors influencing the effectiveness of digital media: pedagogical, technological, and student-related factors. Pedagogically, effectiveness depended on alignment with learning objectives, purposeful task design, lecturer guidance, and feedback. Technological factors included internet connectivity, device availability, platform accessibility, usability, and the suitability of media for particular language skills, with unstable internet identified as a specific challenge. Student-related factors included motivation, digital literacy, self-regulation, prior language proficiency, willingness, and active participation. Overall, digital media was most effective when technology was appropriately integrated into well-designed learning activities, supported by lecturers, and accompanied by active student engagement.

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