


Navigating Technology-Supported English Learning in Vocational Higher Education: Insights from the First-Year Indonesian Polytechnic Students

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ABSTRACT

Despite the growing integration of digital technology into English language instruction in vocational higher education, little research has explicitly looked at how technology-supported learning affects learner autonomy, English proficiency, and learning challenges among Indonesian vocational college students. This study examined how first-year students at Politeknik Negeri Sriwijaya, Indonesia, learned English with the aid of technology based on their patterns of technology use, perceptions, contributions and challenges. Data from 474 students were gathered via an online survey utilizing a descriptive quantitative methodology, and descriptive statistics were used for analysis. The results showed that students regularly employed digital technologies to help them learn English ($M=3.79$, $SD=0.95$), with online videos, mobile applications, artificial intelligence (AI) tools, and online resources being widely used. Additionally, students showed positive perceptions of technology-supported English learning ($M=3.98$, $SD=1.01$), especially with regard to simple access to educational resources, heightened enthusiasm for learning, and enhanced comprehension of lessons. Additionally, it was believed that technology improved English language proficiency ($M=3.92$, $SD=0.98$), particularly speaking, listening, and reading. Additionally, the results demonstrated that technology fosters learner autonomy ($M=3.81$, $SD=0.96$) by allowing students to autonomously access resources, participate in self-directed learning, and assume more accountability for their educational journey. Despite these advantages, students reported a number of difficulties ($M=3.40$, $SD=0.98$), such as the need for more teacher supervision, inadequate internet access, technological difficulties, and learning distractions. Overall, the study shows that technology significantly improves vocational higher education students' English learning experiences, language growth, and learner autonomy. To optimize the advantages of technology-supported English learning, the results emphasize the significance of efficient technology integration, sufficient infrastructure, and pedagogical support.

Keywords: *Technology-Supported English Learning, Vocational Higher Education, Polytechnic Students, Student Perceptions, Learner Autonomy*

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INTRODUCTION

The quick development of digital technology has changed educational methods all around the world and opened up new avenues for language acquisition. Technological advancements in English language instruction have improved communication, increased access to learning materials, and allowed students to interact with real-world language input outside of the typical classroom setting (Hasumi & Chiu, 2024; Y. Wang & Kabilan, 2024). The way that students learn English and engage with educational information has been greatly impacted by the growing availability of many technological tools and applications (Huang et al., 2024). Because of this, technology-supported English learning has become a more significant area of research and use in higher education. Technology-enhanced language learning offers numerous opportunities to boost students' interest, engagement, and language proficiency. Access to a variety of multimodal materials that enhance speaking, listening, reading, and writing abilities is made possible by digital technologies. Videos, podcasts, online publications, virtual communication platforms, and language-learning apps are some of these resources (Puspitasari et al., 2023; Rintaningrum, 2023).

Additionally, by enabling them to learn in accordance with their unique learning preferences, these technologies provide more flexibility and learner-centeredness in language training (Mohebbi, 2024). Because of this, technology-assisted instruction is becoming a crucial part of teaching and learning English.

English language instruction goes through additional modifications as a result of recent advancements in artificial intelligence. Conversational chatbots and automated feedback apps are examples of AI-powered solutions that give students fast responses and personal learning experiences (Crompton et al., 2024; Huang et al., 2024). According to research, AI-supported learning environments can increase student engagement and offer chances for relevant language practice outside of the classroom (Alharbi, 2024). By enabling students to interact with one another and receive prompt responses in stress-free learning environments, AI chatbots in particular have demonstrated a great deal of promise for fostering the development of speaking and writing abilities (Koç & Savaş, 2025). Additionally, generative AI technologies are increasingly being employed in language education to support individualized learning, language generation, and concept formulation (Cogo et al., 2024; C. Wang et al., 2026). Technology-assisted language learning that can promote student autonomy and self-regulated learning is another important benefit. Thanks to digital technologies, students can independently access content, monitor their progress, and engage in learning activities outside of scheduled classroom instruction (Mohebbi, 2024). These initiatives encourage students to take greater responsibility for their education while helping them develop the skills necessary for lifelong learning. Personalized learning pathways enabled by digital technology can also accommodate a variety of learners' needs and preferences, thereby increasing the effectiveness and inclusivity of education.

In addition to encouraging individual learning, technology can facilitate collaboration and communication among students. Students can engage effectively with friends and teachers using social networking apps, video conferencing capabilities, online discussion forums, and collaborative writing tools (A. W. T. Lo, 2025). Additionally, Jannah et al. (2023) have demonstrated that immersive technologies can offer realistic communication contexts that enhance learner engagement and promote language development. These benefits of technology help close the gap between language use in everyday contexts and classroom training. Despite these advantages, using technology to learn English has a number of disadvantages. Students may have issues due to information overload, low digital literacy, unstable internet connections, and limited access to digital devices (Puspitasari et al., 2023; Rintaningrum, 2023). Concerning data security, academic integrity, and an over-reliance on technology have also been brought up by the AI technology applications (Cogo et al., 2024; Crompton et al., 2024). An excessive dependence on it can restrict prospects for thinking critically and learning autonomously, even while AI can offer helpful educational support. Therefore, understanding students' viewpoints and experiences is essential to ensuring that technology is successfully incorporated into English language training.

In vocational higher education, the significance of technology-supported English learning is especially clear. Polytechnic students frequently engage with technical data, professional documentation, and industry-related communication, all of which require a high level of English language ability. Digital technologies can therefore assist students in improving their language proficiency and getting ready for technologically advanced jobs (A. W. T. Lo, 2025; Y. Wang & Kabilan, 2024). While research on technology-enhanced language acquisition has grown significantly in recent years, most of the existing literature focuses on either specific technological applications or general higher education contexts (Hasumi & Chiu, 2024; Huang et al., 2024). Particularly when it comes to first-year polytechnic students transitioning to new learning contexts as they transition from secondary education to higher education, vocational higher education settings have gotten very little attention. In Indonesia, polytechnic institutions are essential in creating a skilled workforce through applied and industry-focused education. However, little is known about how first-year polytechnic students utilize technology to study

English, how they perceive technology-supported learning environments, and what benefits and challenges they face.

This study is to examine technology-supported English learning among first-year Indonesian polytechnic students, given the paucity of research on Indonesian vocational higher education. This research specifically aims to address research questions below. (1) What are the patterns of technology use among first-year Indonesian polytechnic students for English learning? (2) What are first-year Indonesian polytechnic students' perceptions of technology-supported English learning contribution to their English skills and learning autonomy? (3) What benefits and challenges do first-year Indonesian polytechnic students perceive in technology-supported English learning?

METHOD

This study examined first-year Indonesian polytechnic students' experiences with technology-supported English learning using a descriptive quantitative survey design. By methodically gathering and analyzing numerical data, descriptive quantitative research is suitable for investigating patterns, behaviors, attitudes, and experiences within a population (Creswell & Creswell, 2023). The design was chosen because the study aimed to characterize technology use patterns, students' opinions on technology-supported English learning, and the advantages and difficulties they encountered without changing any factors. Conducted at Politeknik Negeri Sriwijaya during the 2026 academic year, first-year students in their second semester enrolled in various academic departments' diploma and applied bachelor's degree programs made up the target demographic. Because they are in a transitional phase of adjusting to higher education learning environments and more technology-mediated learning practices, first-year students were chosen. The study involved 474 first-year students in total. A number of disciplines, including engineering, business administration, computer engineering, information systems, and other vocational programs, were provided to participants. Because the participants were easily accessible through required English classes offered during the semester, a convenience sample technique was used (Fraenkel et al., 2023).

A survey administered through Google Forms was used for data collection. The questionnaire was created based on earlier research on technology-supported English learning and artificial intelligence integration in English education (Hasumi & Chiu, 2024; Huang et al., 2024; Puspitasari et al., 2023; Rintaningrum, 2023; Y. Wang & Kabilan, 2024). There were four sections to the questionnaire. Gender, academic department, and prior experience using technology to study English were among the demographic data collected in the first portion. The second portion looked at how students used technology to study English. Learning management systems, online videos, mobile apps, online dictionaries, social media, websites, and AI-based solutions were highlighted. The final segment looked at students' perceptions of technology-supported English learning, including perceived utility, accessibility, flexibility, efficacy, motivation, and engagement. The fourth component looked at how students perceived the benefits and challenges of learning English with technology. Benefit-related components were learner autonomy, opportunities for independent learning, access to authentic materials, language skill improvement, and learning motivation. The primary subjects of challenge-related items included internet access, technology distractions, information overload, limitations in digital literacy, and difficulties evaluating online information. A five-point Likert scale in the questionnaire, with 1 representing "strongly disagree" and 5 representing "strongly agree" was used. Likert-scale questionnaires are widely used in second language research because they allow researchers to methodically investigate learners' opinions, attitudes, and experiences (Dörnyei & Taguchi, 2010).

Three specialists in educational technology and English language instruction evaluated the content validity of the questionnaire. The experts assessed the instrument's comprehensiveness, usefulness, clarity, and conformity to the goals of the study. Before the questionnaire was distributed, adjustments were made in response to their comments. For the instrument's

reliability, thirty first-year students who were excluded from the main study took part in pilot research. Cronbach's alpha coefficient was analyzed for internal consistency. A score of .70 or higher was deemed suggestive of satisfactory dependability by recognized standards (Field, 2018). In the academic year 2026, data was gathered. The appropriate course instructors gave their consent before any data was gathered. The study's goal, the voluntary participation, and the confidentiality were all described to all participants. The survey was distributed electronically using Google Forms and was accessible for three weeks. Participants completed the survey independently using their own devices. To ensure thorough responses, each questionnaire item was set up as a compulsory field. The completed responses were automatically entered and transferred to Microsoft Excel and IBM SPSS Statistics version 32 for analysis.

The data were first examined to identify incomplete responses and errors in data entry. The study topics were then addressed using descriptive statistical approaches. Frequencies and percentages were computed for each technological tool and platform indicated by participants in order to address the first study question regarding patterns of technology use. Means and standard deviations for both individual questions and total perception scores were calculated in order to address the second study question about students' opinions of technology-supported English learning. Frequencies, percentages, and means were computed and analyzed to address the third study question on the perceived advantages and difficulties of technology-supported English learning. Because they offer concise summaries of participant responses and make it easier to identify dominant themes within the dataset, descriptive statistics were chosen (Creswell & Creswell, 2023). The study complied with accepted ethical guidelines for research in education. Before any data was gathered, each participant provided their informed consent, and participation was completely voluntary. To ensure participant privacy and anonymity, no personally identifiable information was gathered, and all results are displayed in aggregate form.

FINDINGS AND DISCUSSION

Participant Demographics

The study had 474 first-year students in all. The respondents shared their experiences with technology-supported English learning and represented various study programs including electrical engineering, telecommunication engineering, business administration, business management, etc.

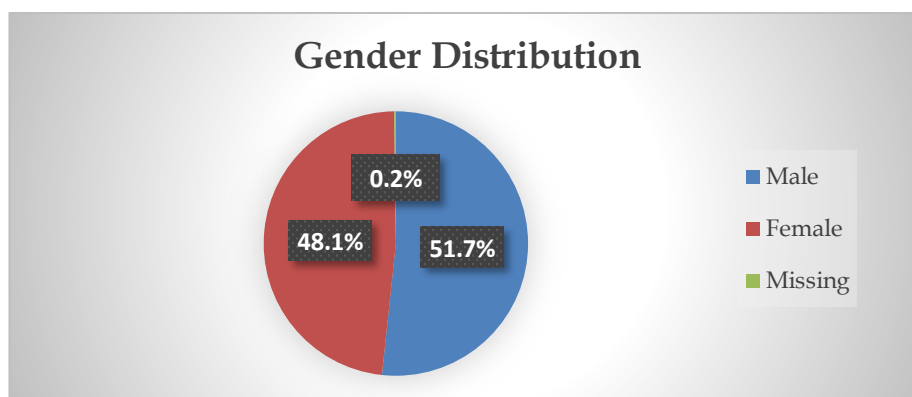


Figure 1. Gender Distribution

The gender distribution above is comparatively balanced. At 51.7% of the sample, men students slightly outnumbered female students. The findings' representativeness is improved by the balanced composition, which also implies that the results represent the viewpoints of both male and female students. A high degree of survey completion is indicated by the low percentage of missing responses (0.2%).

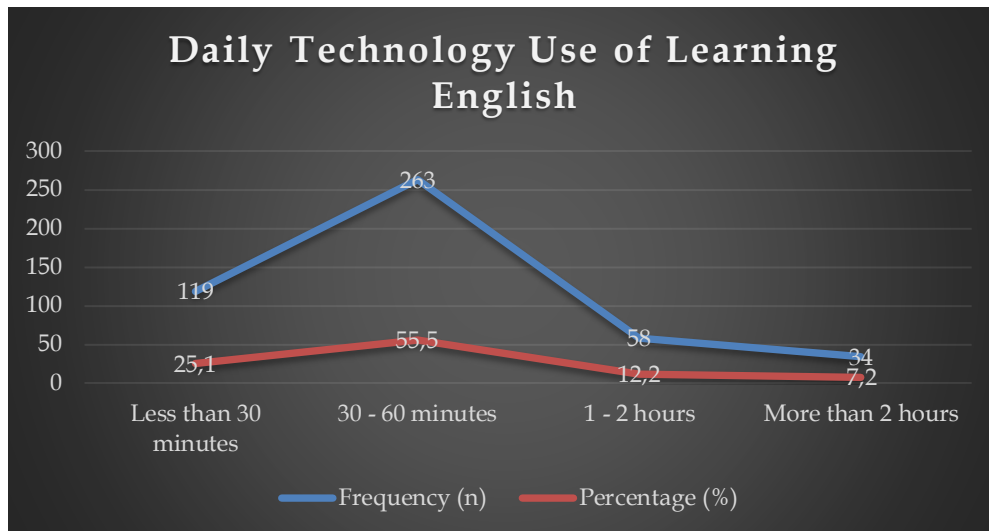


Figure 2. Daily Technology Use of Learning English

According to that figure, the majority of participants now regularly engage in technology-supported English learning. Over half of the participants (55.5%) stated that they use technology to learn English for 30 to 60 minutes per day. This implies that students' everyday learning practices incorporate digital tools. Just 7.2% of students reported using technology for more than two hours each day, while a smaller percentage (12.2%) reported using it for one to two hours. These results suggest that even if students understand the importance of technology, learning English might still only be a part of their larger academic and digital endeavors. The very small proportion of students who spend more than two hours a day could potentially be the result of poor internet access or conflicting academic obligations.

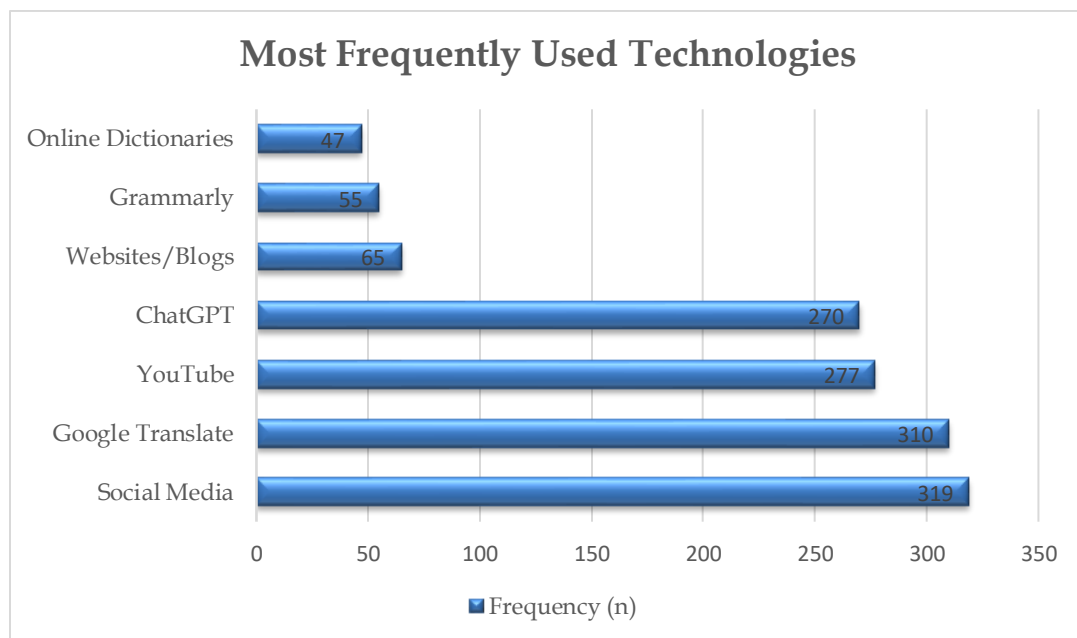


Figure 3. Most Frequently Used Technologies

The results show that students use available digital channels extensively. The most popular technology was social media (n=319), indicating that students are increasingly incorporating language study into their regular online activity. Google Translate came in second place (n=310), indicating that translation assistance is still a crucial tactic for comprehending texts and

terminology. YouTube's widespread use (n=277) emphasizes how crucial audiovisual materials are for language learning. It's interesting to note that 270 students used ChatGPT, demonstrating how quickly vocational higher education students are embracing AI tools. This result points to an increasing trend towards learning settings that are assisted by AI.

Patterns of Technology Use

Students' usage of technology to study English in Table 1 shows the overall mean score of 3.79 (SD=0.95) which indicates that first-year polytechnic students often used a variety of digital devices to improve their English learning activities. The findings imply that technology now plays a major role in students' experiences. The statement "I watch English-language videos for learning purposes" received the mean score (M=3.86, SD=0.97) as the highest, recommending that audiovisual materials are frequently utilized to enhance English proficiency. According to this study, students regularly use online video platforms like YouTube to improve their listening and comprehension skills and obtain real-world language input. The popularity of language-learning apps among students is further demonstrated by the high ranking (M=3.84, SD=0.97) for using mobile applications to improve English proficiency. A rather high grade (M=3.80, SD=0.93) was also given to ChatGPT, indicating that students are highly using AI-assisted technology to help with their English language acquisition. Furthermore, students reported using technology in and out classroom (M=3.78, SD=0.95), suggesting that technological tools make it much simpler to continue studying outside of traditional classroom settings. Additionally, students acknowledged that they frequently utilize technology to learn English (M=3.74, SD=0.97) and the internet to finish English assignments (M=3.75, SD=0.93). Despite having slightly lower mean scores than the others, these items show that individuals use technology in a good way. Overall, the results show that students actively integrate a range of digital resources into their English language learning regimens, highlighting the expanding significance of technology in assisting language acquisition in vocational higher education.

Table 1. Technology Use Practices

Item	Mean (M)	Standard Deviation (SD)
I regularly use technology to learn English	3.74	0.97
I use online resources to complete English assignments	3.75	0.93
I use mobile applications to improve my English skills	3.84	0.97
I watch English-language videos for learning purposes	3.86	0.97
I use AI tools (e.g., ChatGPT) to support my English learning	3.80	0.93
I use technology for English learning both inside and outside the classroom	3.78	0.95
Total	3.79	0.95

Students' Perceptions of Technology-Supported English Learning

Table 2 below displays the opinions of students regarding technology-supported English learning. The total mean score of 3.98 (SD=1.01) shows that first-year polytechnic students generally had good perceptions on using technology in the English instructions. Every item had mean ratings higher than 3.80, indicating a high degree of consensus about the advantages of technology in aiding English language acquisition. Students highly valued the accessibility of digital learning resources, as seen by the mean score (M=4.07, SD=1.02) as the highest for the perspective item "Technology provides easy access to English learning materials." "Technology makes English learning more interesting" (M=4.03, SD=1.04) and "Technology helps me understand English lessons better" (M=4.02, SD=1.03) came next. These results imply that students view technology as an interesting and helpful tool that improves their educational experiences and makes it easier for them to understand the material. In a

similar vein, students concurred that technology enhances their English learning experience ($M=3.99$, $SD=1.01$) and supports their learning needs ($M=4.01$, $SD=0.99$). Students acknowledge the instructional usefulness of digital technology in enhancing learning outcomes, as evidenced by the favorable evaluation ($M=3.99$, $SD=0.98$) given to the question "Technology makes learning English more effective." Students' opinions about technology's involvement in boosting their motivation to study English ($M=3.88$, $SD=1.00$) and improving their engagement in learning activities ($M=3.84$, $SD=0.99$) were favorable, although being significantly lower than the other categories. Overall, the findings show that students view technology-supported English instruction as approachable, efficient, interesting, and advantageous for their language learning progress.

Table 2. Students' Perceptions Of Technology-Supported English Learning

Item	Mean (M)	Standard Deviation (SD)
Technology makes English learning more interesting	4.03	1.04
Technology increases my motivation to learn English	3.88	1.00
Technology helps me understand English lessons better	4.02	1.03
Technology provides easy access to English learning materials	4.07	1.02
Technology makes learning English more effective	3.99	0.98
Technology supports my learning needs	4.01	1.00
Technology enhances my engagement in English learning activities	3.84	1.00
Overall, technology positively contributes to my English learning experience	3.99	1.01
Total	3.98	1.01

Benefits of Technology to English Language Skill Development

The findings show that all four language skills are positively impacted by technology ($M=3.92$, $SD=0.98$). However, some abilities seem to be more advantageous than others. Reading skills received the mean score ($M=4.03$, $SD=0.99$) as the highest, suggesting that students frequently engage with digital texts, websites, online articles, and educational materials. Given the wealth of online written English resources, this result is not surprising. Additionally, speaking practice scored comparatively well ($M=3.97$, $SD=0.99$). This could be explained by the growing availability of social networking apps, video-sharing websites, and AI-assisted platforms that let students practice speaking English in real-world situations. Strong scores were also given to listening-related items ($M=3.95$ – 3.96 , $SD=0.97$ – 0.98). Students' belief that technology enhances their listening skills is probably influenced by the popularity of YouTube videos, podcasts, films, and music. The means stayed over 3.80, suggesting favorable assessments, despite slightly lower scores for writing-related elements. For assistance with writing correctness and language creation, students may rely on programs like Grammarly, Google Translate, and ChatGPT. The following table indicates that technology supports all language skills comprehensively rather than just one particular area.

Table 3. Technology Contribution to English Skills

Skill Area	Mean (M)	Standard Deviation (SD)
Listening skills	3.95	0.97
Listening Comprehension	3.96	0.98
Speaking Skills	3.91	0.99
Speaking Practice	3.97	0.99

Reading Skills	4.03	0.99
Reading Comprehension	3.80	0.97
Writing Skills	3.87	0.98
Writing Accuracy	3.88	0.97
Total	3.92	0.98

Learner Autonomy in Technology-Supported English Learning

The results show that among first-year polytechnic students, technology is crucial in fostering learner autonomy. The overall mean score for learner autonomy was 3.81 (SD=0.86), as indicated in Table 4, indicating that students generally believed that technology allows them to participate more actively in their English learning. The statement "I can easily find English learning resources online" obtained the highest grade (M=3.98, SD=0.98), indicating that students benefit from having immediate access to a range of instructional materials made available through digital platforms. Because of this accessibility, students can independently explore English resources based on their own needs and interests. Additionally, students agreed that technology helps them learn English on their own (M=3.85, SD=1.01), indicating that digital tools can facilitate self-directed learning outside of the classroom. Additionally, respondents stated that technology motivates them to take charge of their own education (M=3.77, SD=0.95), indicating that digital settings promote a higher sense of ownership over the educational process. The question "I often learn English beyond classroom requirements using technology" had the mean score (M=3.62, SD=0.91) as the lowest, but it nevertheless demonstrated a positive propensity towards extending learning activities outside of formal educational settings. Overall, the results indicate that by offering flexible, accessible, and self-directed learning possibilities, technology not only facilitates language learning but also promotes learner autonomy.

Table 4. Learner Autonomy in Technology-Supported English Learning

Item	Mean (M)	Standard Deviation (SD)
Technology enables me to learn English independently	3.85	1.01
I can easily find English learning resources online	3.98	0.98
Technology encourages me to take responsibility for my own learning	3.77	0.95
I often learn English beyond classroom requirements using technology	3.62	0.91
Total	3.81	0.96

Challenges of Technology-Supported English Learning

The results demonstrate that students still face a number of challenges (M=3.40, SD=0.81) in spite of largely favorable opinions. The difficulty with the highest ranking (M=3.59, SD=1.00) was the need for more instructor guidance. This suggests that rather than viewing technology as a teacher substitute, students want academics to provide assistance on how to select and utilize digital materials effectively. Another major issue that surfaced was internet connectivity (M=3.50, SD=1.00). The fact that technical infrastructure is still uneven, especially in developing nations, is reflected in this study. Distractions and technical issues were also mentioned. Because students are regularly exposed to social media updates and non-academic content in digital learning environments, distraction is still a major issue, even with the mean score (M=3.16, SD=0.98) as the lowest. When combined, these results show that effective technology-supported English learning implementation necessitates not only digital tool availability but also sufficient infrastructure, pedagogical assistance, and learner focus techniques.

Table 5. Challenges in Technology-Supported English Learning

Challenge	Mean (M)	Standard Deviation (SD)
Poor internet connectivity	3.50	1.00
Distractions while learning	3.16	0.98
Technical problems	3.36	0.95
Teacher guidance	3.59	1.00
Total	3.40	0.98

Overall, the findings indicate that first-year Indonesian polytechnic students had favorable opinions about studying English with the aid of technology. They see technology as amusing, readily available, and beneficial for language development. Students' reading, speaking, listening, and writing abilities significantly improved, and digital resources, including social media, Google Translate, YouTube, and ChatGPT, were crucial in helping them learn. By facilitating autonomous study outside of the classroom, technology also encouraged student autonomy. To optimize the efficacy of technology-enhanced English learning in vocational higher education, however, issues pertaining to internet access, technical difficulties, distractions, and the requirement for instructor direction continue to be significant concerns.

Discussion

The perceptions, experiences, benefits, and challenges of first-year Indonesian polytechnic students in technology-supported English learning were examined in this study. The findings revealed widespread positive attitudes towards technology integration, significant contributions to language skill development, extensive usage of digital tools, and a variety of challenges with internet access, technical issues, and the need for teacher supervision. The first significant finding shows that students had a positive perception of technology-supported English learning. According to the overall mean score (M=3.98), technology is thought to be a useful instrument for improving educational opportunities. The availability of digital learning materials and the captivating aspects of technology-supported learning settings were especially appreciated by students. This result confirms earlier studies showing how integrating technology improves students' motivation, engagement, and access to language learning materials. According to Rintaningrum (2023), by offering a variety of interactive learning resources, technology promotes flexible learning opportunities and raises learner engagement. In a similar vein, technology makes it possible for students to access real English information outside of the classroom, fostering ongoing language exposure and richer learning experiences. These results imply that technology has become an essential aspect of modern English training rather than as an additional instrument.

The results also showed that technology helps improve English language proficiency, especially speaking, listening, reading, and writing. Out of all the language skill aspects, reading skills had the highest mean score. Students' regular exposure to English-language digital texts, websites, online articles, and social media content may account for this outcome. Learners can interact with language input in relevant contexts and at their own pace to the availability of authentic reading materials online. Additionally, the excellent speaking and listening scores show that students gain from using multimedia resources like podcasts, YouTube videos, online discussions, and AI-assisted platforms. These findings align with recent studies showing that digital technologies facilitate a variety of language domains, including vocabulary learning, grammatical development, speaking practice, reading comprehension, and listening comprehension (Balci, 2024; Lo et al., 2024). According to studies, AI-powered technologies can help with language development in a variety of skill areas by offering chances for personalized language practice, interactive communication, and instant feedback.

The widespread use of digital tools by students to study English is another significant finding. The most popular technologies were ChatGPT, YouTube, Google Translate, and social

networking. Social media's widespread use indicates that language learning is happening more and more in unstructured, independent settings. Students are exposed to modern terminology, real-world communication techniques, and actual language use through social networking sites. Students' inclination for audiovisual learning resources that enhance pronunciation and listening comprehension is further demonstrated by the extensive usage of YouTube. These results support earlier research demonstrating that students actively incorporate digital platforms into their language learning regimens due to the platforms' accessibility, engagement, and compatibility with their everyday digital activities (Rintaningrum, 2023). ChatGPT is particularly popular. Its expanding impact is demonstrated by the fact that over half of the respondents said they used ChatGPT to aid with their English language learning. Recent research indicates that ChatGPT can function as a computerized language-learning assistant by providing explanations, generating examples, correcting linguistic errors, and encouraging conversational practice (Slamet, 2024). Similarly, according to (Lo et al., 2024), ChatGPT increases students' interest and involvement while assisting them in improving their writing, reading, grammar, and vocabulary skills. Students in the current study appeared to recognize these benefits, which may account for the high adoption rate of ChatGPT among first-year polytechnic students. According to the results, technology-supported English learning in vocational higher education is increasingly including AI-assisted learning.

Additionally, the study discovered that technology encourages student autonomy. Students stated that they can learn on their own, easily access materials, and continue their education outside of the classroom thanks to technology. This result is consistent with modern viewpoints on learner autonomy, which highlight students' capacity to assume accountability for their own educational journeys. Self-paced learning is made possible by digital technology, which lets students choose course materials based on their needs, interests, and skill levels. According to recent studies, learners regularly use online resources and AI-powered technologies to assist self-directed language learning, which strengthens their autonomy and self-regulation (Balci, 2024; Liu & Gao, 2024). Therefore, the results of the study provide credence to the idea that technology could enable students to actively and autonomously engage in their language learning process. Students also mentioned a number of difficulties with technology-supported English learning, despite these favorable results. The need for more teacher guidance was the biggest obstacle. Even while they recognize the advantages of technology, students still depend on their teachers to help them choose relevant materials, assess the quality of the information, and make efficient use of digital tools. This result confirms earlier studies' findings that technology should support educators rather than take their place. Pedagogical direction is still crucial for guaranteeing meaningful learning experiences and avoiding inefficient technology use, especially in technologically advanced learning contexts (Rintaningrum, 2023). In order to support learning, scaffold digital literacy, and assist students in navigating increasingly complicated technology environments, teachers continue to play a crucial role.

Technical issues and internet access also surfaced as major obstacles. These results highlight enduring infrastructure obstacles that could limit the efficacy of technology-supported education, especially in poor nations. Even though digital technologies provide many educational advantages, students' ability to fully engage in online learning activities may be hampered by unequal access to dependable internet services and technological resources. Similar difficulties have been observed in earlier research with technological limitations frequently reducing student interest and learning effectiveness (Rintaningrum, 2023). Distraction during technology-supported learning was another issue found in this study. Students admitted that they might be exposed to competitive online activities, social media notifications, and non-academic content in digital environments. This outcome is in line with ongoing discussions over the moral use of digital technology and artificial intelligence in the classroom. In order to prevent over-reliance and distraction, learners must possess sufficient digital literacy and self-regulation abilities, even while AI tools and online platforms offer beneficial learning opportunities. The significance of

encouraging students to use AI-assisted learning technologies responsibly and purposefully has also been highlighted in earlier research (Polakova & Ivenz, 2024; Werdiningsih & Marzuki, 2024).

Overall, the results indicate that students in vocational higher education can benefit greatly from technology-supported English instruction. Technology makes learning resources more accessible, fosters the development of language skills, encourages student autonomy, and offers chances for individualized and adaptable learning experiences. However, sufficient technical infrastructure, suitable pedagogical support, and students' capacity for responsible use of digital tools are all necessary for the success of technology integration. Institutions and educators should devise strategies that optimize the pedagogical benefits of artificial intelligence tools like ChatGPT while addressing potential issues with digital literacy, ethical use, and learner dependence as these tools are increasingly incorporated into educational contexts.

CONCLUSIONS

This study examined first-year students' perceptions, experiences, benefits, and challenges of technology-supported English learning at a polytechnic. The findings showed that students generally perceived technology positively, considering it accessible, engaging, and effective in supporting English learning. Reading was identified as the most improved language skill, followed by speaking, listening, and writing. Students frequently used digital platforms such as social media, Google Translate, YouTube, and ChatGPT to access authentic learning resources and support independent learning beyond the classroom. Technology also promoted learner autonomy by enabling flexible and self-directed study. However, challenges remained, including limited internet access, technical problems, digital distractions, and the need for greater teacher guidance. The study highlights that effective technology integration requires not only digital tools but also adequate infrastructure, pedagogical support, digital literacy, and responsible AI use. It contributes to the literature by focusing on vocational higher education, a context that remains underrepresented in technology-enhanced language learning research. Future studies should involve multiple institutions and adopt qualitative or longitudinal approaches to provide broader evidence on technology-supported English learning.

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