The Impact of Digital Learning Technologies on Students' English Learning Strategies in the New Normal Era

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Abstract

This study examines the impact of digital learning technologies on English learning strategies among secondary and tertiary students in the New Normal era, combining quantitative and qualitative perspectives. Quantitative data were collected from 206 English education university students via a Likert-scale questionnaire assessing technology use frequency, perceived usefulness, and learning strategy adoption. Qualitative data were gathered from senior high school students in South Sulawesi through an open-ended questionnaire on strategies, media, and study habits. Findings indicate that digital tools, particularly YouTube, Google Translate, online dictionaries, and mobile apps, are extensively used and perceived as beneficial across educational levels. Quantitative results show significant positive correlations between technology use and metacognitive, cognitive, and social-affective strategies. Regression analysis confirms that technology use and perceived usefulness predict strategy adoption. Qualitative findings reveal diverse student strategies such as independent study, media consumption, vocabulary memorization, and the use of both online and offline resources. The study concludes that digital technologies facilitate self-regulated, interactive, and resource-rich learning, offering pedagogical implications for technology-integrated language instruction in the post-pandemic era.

Keywords: Digital learning; learning strategies; new normal; students.

1.   Introduction

The teaching and learning process relies heavily on strategies employed by both teachers and students to ensure effective and efficient learning. While teachers design the strategies, students must also play an active role in adapting these strategies to their learning needs. Effective teaching involves aligning strategies to achieve educational goals, as emphasized by Silver et al. (2019). In the context of English language learning, the strategies chosen by educators must cater to the specific skills being taught, be it speaking, writing, or listening. Different strategies are necessary for different skills, and adapting them to student needs ensures optimal learning outcomes.

The COVID-19 pandemic has significantly disrupted global education, triggering an accelerated shift to online learning. In Indonesia, the Ministry of Education and Culture swiftly adopted digital platforms such as *Rumah Belajar* and Google Classroom, aiming to sustain educational delivery amid lockdowns. This transition marked the beginning of what has been termed the "new normal era" in education, where face-to-face learning was replaced by remote and hybrid learning methods. This shift necessitated not only changes in teaching methods but also alterations in how students engage with English language learning outside the classroom.

With the increasing reliance on digital technologies, the strategies students use to learn English have become even more important. Technology, including platforms like YouTube, Google Translate, and mobile apps, now plays a central role in students' language learning journeys. These digital tools allow students to engage with authentic materials, practice language skills independently, and receive instant feedback, thus fostering self-regulated learning (Zheng, Li, & Chen, 2020). While previous studies highlight the role of digital tools in enhancing autonomy and motivation (Thorne &

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Black, 2007; Kukulska-Hulme et al., 2017; Sakkir, Rahman, & Salija, 2016), the specific ways in which these tools affect students' learning strategies remain underexplored.

Existing research on language learning strategies suggests that students employ a variety of techniques, including cognitive, metacognitive, and social-affective strategies, to navigate their language learning processes. Cognitive strategies, such as repetition and summarization, help learners internalize new information. Metacognitive strategies, including planning and self-monitoring, enable students to regulate their learning more effectively. Social-affective strategies, which involve interaction with others and managing emotions, also contribute to the development of language skills. The use of digital technologies can amplify these strategies, creating more personalized and engaging learning experiences.

However, limited research exists on the intersection of these strategies and the specific digital tools used in the New Normal era. While many studies have investigated strategies in traditional learning environments, few have examined how the pandemic-driven shift to online and hybrid learning has influenced students' strategic approaches to learning English. The implementation of digital platforms has introduced new challenges, requiring students to adapt and develop innovative learning strategies. This context highlights the need for further empirical studies exploring how digital tools interact with learning strategies, particularly in the post-pandemic era.

The importance of understanding students' English learning strategies in the new normal era cannot be overstated. As students continue to navigate a landscape where online and hybrid learning are the norm, understanding how digital tools shape their learning behaviors is crucial. By investigating students' use of digital technologies, this study aims to fill the gap in existing research, offering valuable insights into how technology can support and enhance the adoption of effective learning strategies.

This article is motivated by the pressing need to better understand how students in Indonesia are adapting their strategies to fit the challenges and opportunities presented by the New Normal era. The results of this study will provide valuable information for educators and policymakers seeking to design more effective language instruction strategies that integrate digital tools. By focusing on both the frequency and perceived usefulness of these tools, the study aims to inform educational practices that foster improved English language learning outcomes in the current educational landscape.

In conclusion, this research is driven by the need to explore the evolving relationship between digital learning tools and language learning strategies during the New Normal era. Given the rapid shift to online education and the growing role of technology in language learning, it is essential to examine how these factors interact to shape students' learning behaviors. Understanding this dynamic will contribute to the development of more effective, technology-integrated English language teaching methods, ensuring that students are equipped to succeed in an increasingly digital world.

Based on the background and objectives outlined, the study is guided by the following research questions:

a. What types and frequencies of digital technologies do students use for learning English in the New Normal era?
b. How do students perceive the usefulness of digital learning technologies in enhancing their English learning strategies?
c. What is the relationship between the use of digital learning technologies and the adoption of metacognitive, cognitive, and social-affective learning strategies among students?

2. Literature Review

2. 1. Digital Learning Technologies in Language Education

The rapid advancement of digital learning technologies has reshaped the landscape of education globally, particularly in language learning. In the context of English language education, platforms such as YouTube, mobile apps like Duolingo and Babbel, and online dictionaries like Cambridge or Oxford, play a crucial role in providing flexible, multimodal learning experiences. These tools allow students to engage in authentic language practices outside the traditional classroom setting, offering varied inputs such as videos, quizzes, games, and interactive exercises, which cater to different learning styles (Arquero et al., 2024).

YouTube, for example, is widely used to improve English listening skills, providing access to a wide range of authentic materials, such as TED Talks, movies, documentaries, and English tutorials (Halim, 2022). The availability of subtitles and interactive features on platforms like YouTube enhances vocabulary acquisition and comprehension (Stockwell, 2022). Additionally, language learning apps like Duolingo provide structured lessons on grammar and vocabulary, while

also incorporating gamification elements that motivate learners through progress tracking, daily challenges, and achievement badges. These platforms enable students to practice at their own pace, fostering autonomy and engagement.

In Indonesia, platforms such as *Rumah Belajar*, Quipper, and Zenius were adopted widely during the COVID-19 pandemic to sustain educational delivery. *Rumah Belajar*, for instance, offers resources specifically tailored for language learners, including English, and facilitates access to virtual classrooms, digital libraries, and interactive materials. These resources have proven beneficial in enhancing access to learning materials, especially in remote or underserved areas, where traditional educational resources were scarce (Abidah et al., 2020). Furthermore, these platforms often integrate features such as real-time feedback and personalized pathways, which promote student engagement and provide a more interactive learning experience.

These digital tools, which support all aspects of language learning, have proven invaluable in adapting to the challenges of the New Normal era, where online and hybrid learning environments have become the norm. By leveraging digital technologies, students are better equipped to acquire language skills independently, with tools that offer immediate feedback and support continuous practice, making them indispensable in the learning process.

2. 2. Language Learning Strategies in the Context of Digital Technologies

Language learning strategies are critical for students to achieve proficiency in English, particularly in an environment where digital tools play a central role (O'Malley & Chamot, 1990). Oxford (1989) defines language learning strategies as the specific behaviors or actions learners employ to improve their learning efficiency, make the learning process more enjoyable, and become more self-directed. These strategies are divided into three main categories: metacognitive, cognitive, and social-affective strategies.

a. Metacognitive strategies involve the processes of planning, monitoring, and evaluating one's learning progress. These strategies are vital for self-regulation and self-awareness, allowing students to assess their understanding and adjust their learning approaches accordingly. Metacognitive strategies, such as planning and self-monitoring, are crucial for regulating learning, and digital tools can support these strategies, as Chamot (2004) argues, by providing platforms that track progress and facilitate goal-setting. Digital tools, such as learning management systems (LMS) and language apps, provide students with progress-tracking features, enabling them to evaluate their performance and set goals for improvement (Chun et al., 2016). For instance, Duolingo offers users the ability to track their vocabulary mastery, reminding them of words they struggled with previously, fostering metacognitive awareness.

b. Cognitive strategies, on the other hand, involve direct manipulation of the language, such as through repetition, summarization, or analysis. These strategies are integral to improving linguistic skills. Digital technologies amplify these strategies by providing abundant resources for practice. For example, learners can use YouTube to listen to English content repeatedly, enhancing comprehension, or use apps like Babbel to practice pronunciation and grammar rules.

c. Social-affective strategies focus on the social and emotional aspects of language learning. They involve interacting with others, managing learning-related anxiety, and seeking support. Digital tools such as online discussion groups, language exchange platforms, and virtual classrooms provide opportunities for students to practice English with peers and teachers, fostering collaboration and communication. These strategies are especially important in the New Normal era, where face-to-face interaction is limited, and online platforms become the primary means of communication (Ayeras et al., 2024).

Incorporating digital tools into language learning helps students implement these strategies more effectively by providing a structured, resource-rich environment for self-regulated learning. Moreover, the flexibility of digital platforms allows students to learn at their own pace, helping them personalize their learning strategies based on their individual needs and preferences. This adaptability is key to enhancing the effectiveness of language learning strategies in the digital age.

2. 3. Technology-Strategy Interaction in the New Normal Era

The New Normal era has accelerated the adoption of digital learning tools, leading to significant shifts in how students use learning strategies. Research shows that the increased use of technology correlates with greater awareness and deployment of learning strategies. For example, students who frequently engage with video content on platforms like YouTube tend to employ more cognitive strategies, such as selective listening and note-taking, to better understand the

material (Dörnyei, Z., & Al-Hoorie, A. H., 2017). These strategies enhance the students' ability to process information and retain new knowledge.

Moreover, tools that provide progress tracking and instant feedback—features commonly found in language learning apps and online platforms—support the development of metacognitive strategies. These features allow students to monitor their own learning and adjust their methods as needed. For instance, apps like Duolingo provide real-time feedback on vocabulary and grammar exercises, enabling students to reflect on their progress and identify areas for improvement. The availability of such feedback enhances students' self-regulation and contributes to the development of more effective learning strategies.

The Technology Acceptance Model (Davis, 1989) posits that perceived usefulness is a key factor in determining how deeply technology is integrated into learning routines. Students who perceive digital tools as useful are more likely to incorporate them into their learning strategies, enhancing their effectiveness. In the New Normal era, where blended and fully online learning environments have become commonplace, the alignment between technology use and learning strategies is more critical than ever. When students find digital tools to be beneficial, they are more likely to engage with them in ways that enhance their learning strategies, ultimately improving their language skills.

The New Normal era has further intensified students' reliance on digital tools, making it necessary for both educators and students to adapt their strategies. As the world continues to move toward hybrid and online learning environments, the integration of technology into language learning strategies becomes essential for ensuring continued academic success.

2. 4. The Role of Digital Learning technologies in Overcoming Learning Barriers

The transition to online learning during the COVID-19 pandemic presented significant challenges, particularly in terms of access to technology. While urban areas had greater access to the internet and digital resources, students in rural or underserved areas faced difficulties due to limited internet connectivity and a lack of proper devices. The Indonesian government responded to these challenges by developing digital learning platforms, such as the "Portal Rumah Belajar" and collaborating with major online learning platforms like Quipper, Zenius, and Microsoft to provide free access to educational resources (Abidah et al., 2020).

Despite the barriers to digital access, the flexibility of online learning technologies has allowed students to continue their education and bridge gaps in learning. The use of platforms like Google Classroom and various educational apps enables students to learn at their own pace and access a wide range of resources, such as virtual classes, e-books, and interactive lessons. These digital tools not only support traditional learning but also promote independent study and the development of self-regulation strategies, which are critical for success in an online learning environment.

The government's efforts to improve access to online education are crucial in ensuring that all students, regardless of their location or socioeconomic status, have equal opportunities to succeed in the digital era. However, it is important to continue addressing the digital divide and ensure that all students have the necessary tools and support to fully benefit from digital learning technologies. As students in Indonesia continue to adapt to online learning, understanding how these technologies interact with learning strategies will be essential for designing effective educational practices that meet the needs of all learners.

3. Research Method

This study employs a mixed-methods design, combining quantitative and qualitative approaches to examine the impact of digital learning technologies on students' English learning strategies in the New Normal era. The use of both methods allows for a comprehensive understanding of the research problem by combining numerical data with in-depth insights from participants. The mixed-methods approach used in this study was guided by research principles outlined by Cohen, Manion, & Morrison (2002), focusing on both qualitative and quantitative data to gain a comprehensive understanding of the issue.

The quantitative component of the study primarily focuses on collecting data through a Likert-scale questionnaire. This questionnaire assessed three main aspects: (1) the frequency of digital technology use, (2) the perceived usefulness of digital technologies in enhancing language learning, and (3) the adoption of various learning strategies (metacognitive, cognitive, and social-affective). The survey was administered to 206 English education university students from different regions in South Sulawesi, Indonesia, aged between 16 to 18 years. The quantitative data provide broad, generalizable findings regarding patterns of technology use and how these relate to students' learning strategies.

Descriptive statistics, Pearson correlation, and multiple regression analyses were used to analyze the data, providing insights into the relationships between digital technology use and the adoption of learning strategies.

The qualitative component complements the quantitative data by providing deeper insights into students' experiences, perceptions, and personal strategies when using digital technologies. Qualitative data were gathered through open-ended questionnaires administered to senior high school students in South Sulawesi. This allowed students to express their views on the digital tools they use, how these tools influence their learning strategies, and the challenges they face in adapting to the New Normal era. The qualitative responses were analyzed thematically, identifying key patterns and common themes related to the use of technology in language learning.

By combining both quantitative and qualitative data, this study offers a more nuanced understanding of how digital tools influence students' learning strategies. The quantitative data offers statistical evidence of trends and correlations, while the qualitative data provides contextual insights into how students engage with these tools in real-world learning environments. Together, these approaches allow for a more holistic view of the impact of digital technologies on English language learning in the New Normal era.

4. Results

4. 1. Types and frequencies of digital technologies do students use for learning English in the New Normal

This study deals with the implementation of English learning strategies in the new normal era. The researchers start distributing the online questionnaires to the students about general information. The questionnaire consists of name, gender, school, type of school, class, region, learning experience duration, and whether they like English or not. The researchers shared the questionnaire in a Google Form link to some senior high school English students in South Sulawesi, and there were 206 students sent back the result. Therefore, to evaluate whether this current curriculum change is effective to be used, the students' responses are gathered in the next phase.
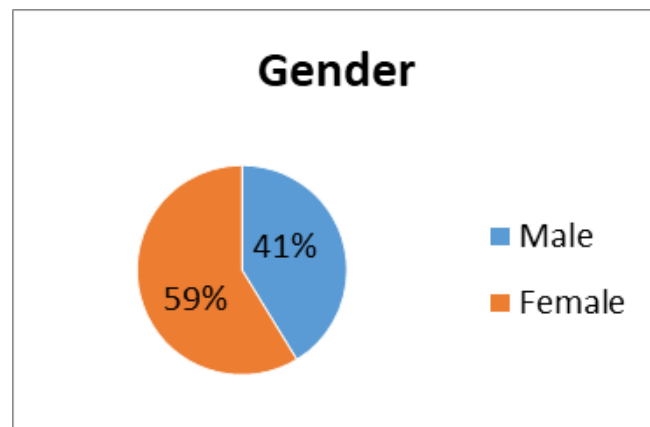
Figure 1. Genders of Students

Based on Figure 1, the students' genders in the study consisting of 85 male students (41%) and 121 female students (59%). These findings show that female students are still more dominant in this study than male students. The types of schools of the students in this study are variety. No students study in *SMA Swasta* (Private Senior High School); 90 students study at *SMA Negeri* (Public Senior High School) (43.68%), 68 students study at *SMK Negeri* (Public Vocational School) (33.01%), 2 students study in *SMK Swasta* (Private Vocational School) (0.97%), 40 students who study in *MAN* (Islamic Senior High School) (19.42%), and 6 students study in other schools' types (2.91%). The learning English experiences of the students in this study. 88 students studied during 0-5 years (42.71%), 53 students studied during 5-10 years (25.72%), and 65 students who studied English for more than 10 years (31.55%).

Based on Figure 2, the region schools' place of the students in this study. Of the 24 regions in South Sulawesi, there are 8 regions from which the students in this study are from. There is only 1 student who studies in Bantaeng and Bone; there are 2 students who study in Pangkep; 3 students who study at Wajo Regency; 6 students who study in Pinrang Regency; 26 students who study in Enrekang Regency; 61 students who study in Palopo city; and most of them (51.45%) students who study in Sidrap Regency (106 students).
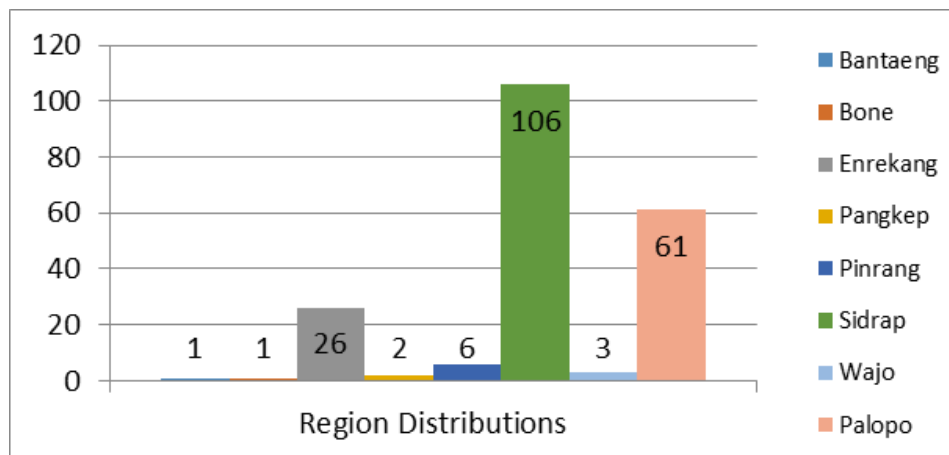
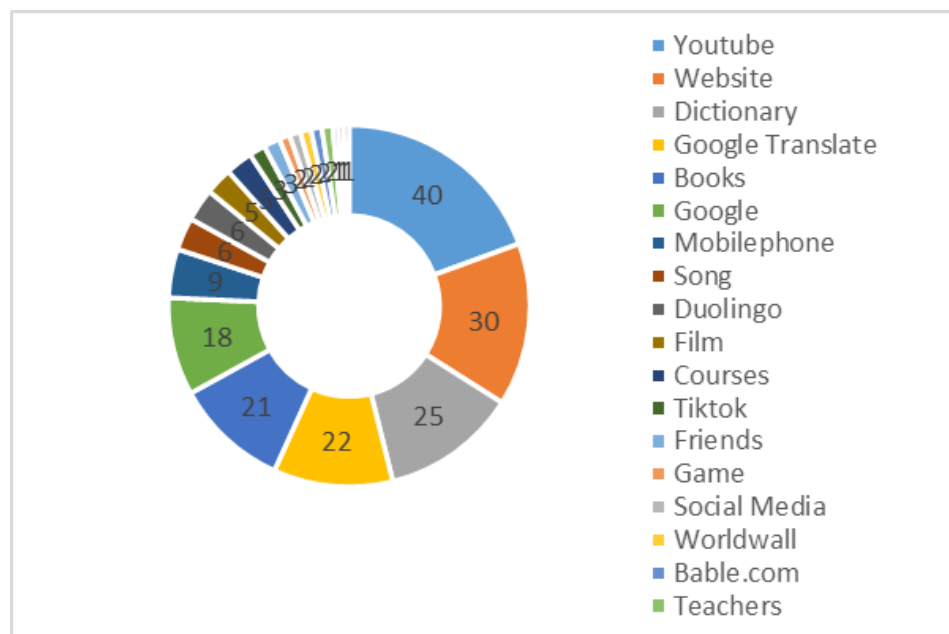**Figure 2.** Region of Schools

Figure 3. Students' Media

Based on Figure 3, it can be seen that there are several media commonly used by high school students to improve their English skills, including YouTube (40 students); Website (30 students); Dictionary (25 students); Google Translate (22 students); books (21 students); Google (18 students); handphone (9 students); Song/ music and Duolingo each (6 students); film/ video (5 students); courses (5 students); Tiktok and friends each (3 students); games, social media such as Instagram, Worldwall Application, Babble.com, teachers 2 students each; and newspaper, Client side application and Bottled application (1 student).

Based on Figure 4, it can be seen how long the duration of time used by students in learning English is. There are 64 students (31.07%) who set aside time to study English 1x a week, 43 students (20.87%) study 2x a week, 21 students (10.19%) study 3x a week, 9 students (4.36%) study 1-2x a week, 14 students (6.79%) study 2-3x a week, 5 students (2.43%) study 3-4x a week, 15 students (7.28%) study only according to the school schedule, 9 students (4.36%) study every day, 5 students (2.43%) rarely study, 8 students (3.88%) not necessarily in learning and there are 3 students (1.45%) who have never studied English.
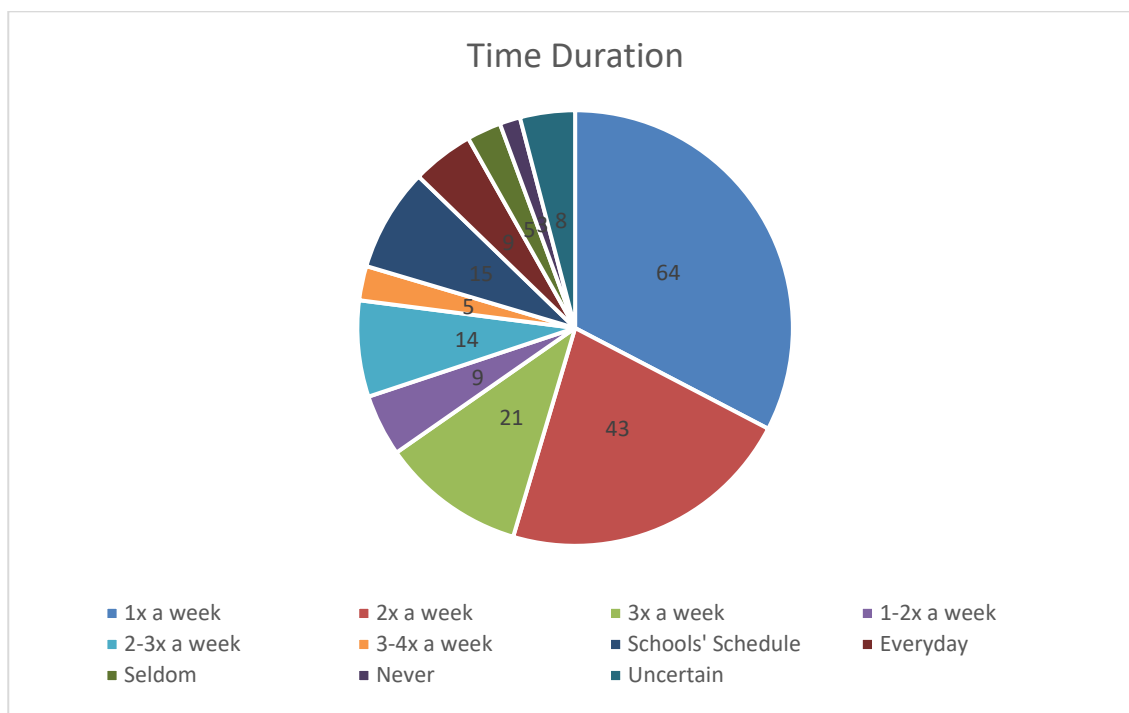
Figure 4. Time Duration

Table 1. Descriptive Statistics for Digital Technology Use Frequency

Digital Technology Tool	Mean (M)	Standard Deviation (SD)	Interpretation
YouTube	4.32	0.76	Very High Use
Google Translate	4.18	0.82	High Use
Online Dictionaries	3.95	0.89	High Use
Mobile Apps (e.g., Duolingo)	3.42	1.12	Moderate Use

Table 1 presents the frequency of digital technology use by students in their English learning process. The most frequently used tool is YouTube (M = 4.32, SD = 0.76), followed by Google Translate (M = 4.18, SD = 0.82), indicating that students regularly use these platforms for enhancing their English comprehension and vocabulary. Online Dictionaries also show high usage (M = 3.95, SD = 0.89), while Mobile Apps like Duolingo have moderate usage (M = 3.42, SD = 1.12). These results highlight the central role of digital tools, particularly YouTube and Google Translate, in supporting students' language learning efforts.
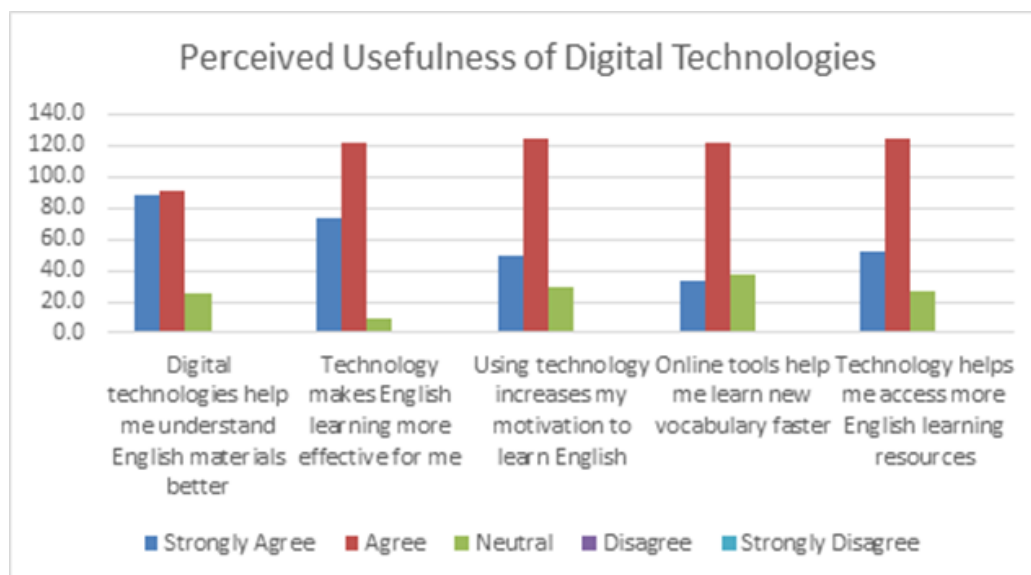
4. 2. Perceived Usefulness of Digital Technologies

In the context of the New Normal era, understanding students' perceptions of the usefulness of digital technologies is essential for assessing their impact on English language learning. This section explores how students perceive the effectiveness of various digital tools in enhancing their language skills, specifically focusing on comprehension, vocabulary mastery, and overall learning efficiency. The data presented in Table 2 and Figure 8 provide a detailed overview of students' responses, highlighting the significant role digital technologies play in supporting English language acquisition.

Table 2. Descriptive Statistics for Perceived Usefulness

Aspect of Usefulness	Mean (M)	Standard Deviation (SD)
Improves Comprehension	4.28	0.71
Enhances Vocabulary Mastery	4.21	0.79
Overall Perceived Usefulness	4.15	0.68

Table 2 presents the descriptive statistics for the perceived usefulness of digital technologies in enhancing students' English learning. The results indicate that digital tools are highly valued by students, with the highest mean score of 4.28 (SD = 0.71) for improving comprehension. Following this, vocabulary mastery is also rated highly (M = 4.21, SD = 0.79), suggesting that students find digital technologies effective in expanding their language proficiency. Overall, the perceived usefulness of digital technologies, as indicated by the mean score of 4.15 (SD = 0.68), demonstrates strong agreement among students regarding the positive impact of these tools on their learning process. These findings underscore the critical role that digital technologies play in facilitating more efficient and engaging English language learning.

Figure 5. English Teaching Practices

Figure 5 illustrates the perceived usefulness of digital technologies in enhancing students' English learning. The bar chart presents five key statements, each representing different aspects of how students view the effectiveness of digital technologies. These statements measure students' perceptions of how digital tools contribute to improving their English comprehension, vocabulary mastery, and overall learning experience. The data reveal that the majority of students strongly agree with the usefulness of digital tools in improving their comprehension (M = 4.28, SD = 0.71), with 49.2% of respondents affirming that digital technologies significantly enhance their English comprehension. Similarly, the tools are highly regarded for enhancing vocabulary mastery (M = 4.21, SD = 0.79), with 44.7% agreeing that digital resources help them improve their vocabulary. The overall perceived usefulness of these technologies also shows a high rating (M = 4.15, SD = 0.68), with 50% of students recognizing their importance in supporting language learning. These results suggest that students perceive digital tools as highly effective in improving their language skills, with these tools playing an integral role in their learning strategies by offering accessible, flexible, and efficient support.

4. 3. Students' English Learning Strategies

The effective adoption of learning strategies plays a crucial role in enhancing students' English language proficiency, especially in the context of the New Normal era. In this section, we examine the various strategies that students employ in their English learning process, specifically focusing on metacognitive, cognitive, and social-affective strategies. The data presented in Table 3, Table 5, Table 6, Table 7, and Figure 9 provide a comprehensive overview of how digital technologies and other variables influence students' use of these strategies.

Table 3. Descriptive Statistics for Learning Strategy Adoption

Strategy Type (Oxford, 2016)	Mean (M)	Standard Deviation (SD)	Interpretation
Metacognitive Strategies	4.05	0.81	High Adoption
Cognitive Strategies	3.92	0.87	High Adoption
Social-Affective Strategies	3.74	0.95	Moderate-High Adoption

Table 3 presents the descriptive statistics for the adoption of different learning strategies, categorized into metacognitive, cognitive, and social-affective strategies. The data reveal that metacognitive strategies are the most commonly adopted by students, with a high mean score of 4.05 (SD = 0.81), indicating strong utilization of strategies such as planning, monitoring, and evaluating one's learning progress. Cognitive strategies also show high adoption (M = 3.92, SD = 0.87), reflecting students' use of techniques like repetition and summarization to internalize language concepts. Social-affective strategies, while slightly less adopted, still show moderate-high usage (M = 3.74, SD = 0.95), suggesting that students engage in strategies involving collaboration, emotional regulation, and seeking external support.

Table 4. Pearson Correlation Matrix between Key Variables

Variable	1	2	3	4
1. Technology Use Frequency	1			
2. Perceived Usefulness	.68**	1		
3. Metacognitive Strategies	.63**	.62**	1	
4. Cognitive Strategies	.59**	.58**	.71**	1
5. Social-Affective Strategies	.55**	.56**	.65**	.69**

Note: ** $p < .01$

Table 4 presents the Pearson correlation matrix, which highlights the relationships between technology use frequency, perceived usefulness, and the adoption of metacognitive, cognitive, and social-affective strategies. The correlations show significant positive relationships between technology use and strategy adoption. For instance, the correlation between technology use frequency and metacognitive strategies (r = 0.63), as well as between perceived usefulness and cognitive strategies (r = 0.58), indicates that the more frequently students use digital tools and the more they perceive them as useful, the more likely they are to adopt metacognitive and cognitive strategies. These correlations emphasize the important role that digital technologies play in shaping students' approach to language learning.

Table 5. Regression Analysis Summary for Predicting Metacognitive Strategies

Predictor Variable	B	β	t	Sig.
(Constant)	1.215	-	4.892	0
Technology Use Frequency	0.302	0.36	5.421	0
Perceived Usefulness	0.415	0.42	6.014	0

Model Summary: R^2 = .49, Adjusted R^2 = .48, $F_{(2,203)}$ = 98.14, $p < .001$

The model explains 49% of the variance in metacognitive strategy use. Both technology use (β = .36) and perceived usefulness (β = .42) are significant positive predictors. Table 5 provides the regression analysis results for predicting metacognitive strategy adoption based on technology use frequency and perceived usefulness. The analysis shows that both technology use frequency (β = 0.36) and perceived usefulness (β = 0.42) are significant positive predictors of metacognitive strategy adoption. The model explains 49% of the variance in metacognitive strategy use (R^2 = 0.49), suggesting that the more frequently students use digital technologies and the more useful they perceive these tools to be, the more likely they are to engage in metacognitive strategies like planning, monitoring, and self-reflection. This finding underscores the importance of integrating digital tools into language learning to promote self-regulated learning behaviors.

Table 6. Independent Samples t-test for Social-Affective Strategies by Gender

Gender	N	Mean (M)	SD	t	df	Sig. (p)
Female	121	3.89	0.91	2.41	204	0.017
Male	85	3.54	0.98			

Female students (M = 3.89) reported significantly higher use of social-affective strategies than male students (M = 3.54), t(204) = 2.41, p = .017. Table 6 presents the results of an independent samples t-test comparing the use of social-affective strategies between male and female students. The results indicate a significant difference, with female students (M = 3.89, SD = 0.91) reporting higher use of social-affective strategies than male students (M = 3.54, SD = 0.98),

t(204) = 2.41, p = 0.017. This suggests that female students are more likely to engage in strategies that involve collaboration, emotional regulation, and seeking external support, such as interacting with peers or teachers through digital platforms. These gender differences highlight the need for educators to consider gender-specific approaches when designing strategies to support social and emotional aspects of language learning.
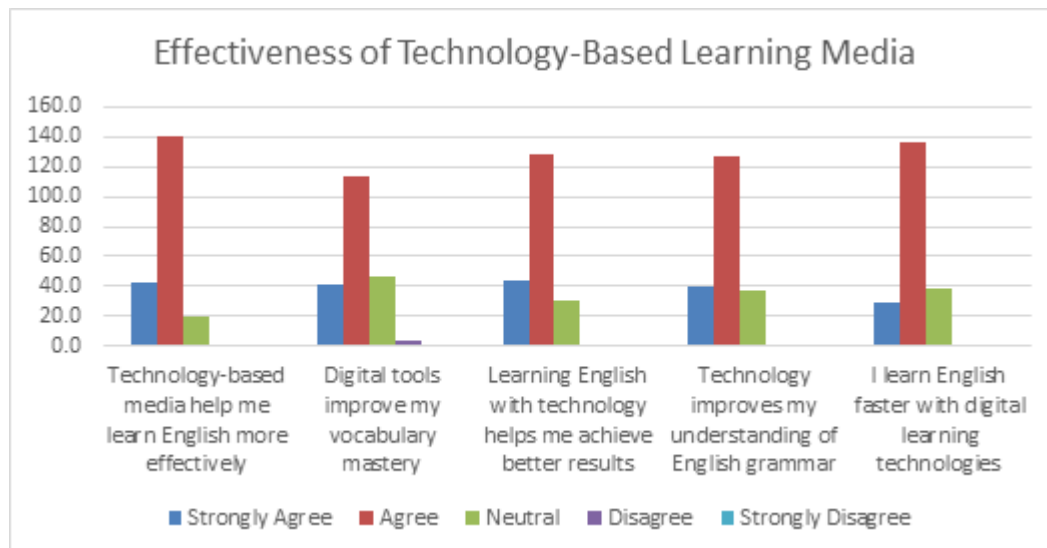
Figure 6. Effectiveness of Technology-Based Learning Media

Figure 6 presents the effectiveness of various technology-based learning media used by students to improve their English skills. The data shows that digital platforms like YouTube, websites, and dictionaries are the most commonly used and perceived as highly effective tools for enhancing English language learning. The frequency of usage aligns with the effectiveness ratings, with students consistently reporting that these tools significantly contribute to improving their comprehension, vocabulary mastery, and overall learning experience. The diversity of media used, ranging from videos and websites to mobile apps and social media, reflects students' ability to tailor their learning strategies to suit their individual preferences and needs, further emphasizing the role of digital technologies in supporting a range of learning styles.

5. Discussions

The findings of this study demonstrate the significant role that digital learning technologies play in shaping students' English learning strategies in the New Normal era. As highlighted in the Introduction, the rapid transition to online and hybrid learning environments due to the COVID-19 pandemic has resulted in the widespread adoption of digital tools in education. These tools, including platforms such as YouTube, Google Translate, and mobile apps like Duolingo, are now integral to students' language learning journeys. The results of this study show that students are not only using these technologies frequently but also perceiving them as highly useful in enhancing their English language skills. This aligns with existing literature on the increasing reliance on digital tools in education and language learning (Kukulska-Hulme et al., 2017; Thorne & Black, 2007), which underscores the value of these technologies in providing flexible, accessible, and personalized learning experiences.

The high frequency of digital technology use and the positive perception of its usefulness, particularly for improving comprehension and vocabulary mastery, reflect the findings from Table 1 and Table 2. These results support the Technology Acceptance Model (Davis, 1989), which posits that perceived usefulness is a key factor in determining whether users will adopt and continue using technology. The significant correlation between the use of digital tools and the adoption of metacognitive and cognitive strategies, as presented in Table 5 and Table 6, further emphasizes the role of these technologies in fostering self-regulated learning. Specifically, digital tools like YouTube, Google Translate, and Duolingo offer features that encourage planning, monitoring, and self-reflection—critical elements of metacognitive strategies. This is consistent with the work of Oxford (1989), who identified metacognitive strategies as essential for effective language learning, enabling students to regulate their learning and achieve greater autonomy.

Furthermore, the adoption of social-affective strategies, particularly among female students as indicated in Table 7, reveals important insights into how gender may influence the use of digital tools for collaboration and emotional

support. Female students' higher use of social-affective strategies aligns with prior research (Green & Oxford, 1995) that suggests women are more likely to seek social interactions and emotional regulation in learning environments. These findings highlight the need for educators to tailor their digital learning strategies to the diverse needs of students, taking into account both cognitive and emotional aspects of learning.

The effectiveness of technology-based learning media, as shown in Figure 9, reflects the growing recognition of the impact that digital tools have on language learning. This finding reinforces the arguments made in the Literature Review, where the potential of digital technologies—ranging from mobile apps to online platforms—was discussed in terms of enhancing language acquisition through personalized learning paths and instant feedback (Stockwell, 2022). The positive perceptions of digital tools in this study indicate that students recognize their value in providing engaging, interactive, and self-paced learning experiences, which are crucial for mastering a language.

In sum, the results of this study confirm that digital learning technologies significantly enhance students' English learning strategies. By fostering the adoption of metacognitive, cognitive, and social-affective strategies, these tools support a more personalized and effective learning experience. The integration of these technologies into the language learning process not only promotes autonomy and engagement but also enables students to navigate the challenges of the New Normal era more successfully. The findings underscore the importance of continuing to explore and integrate digital technologies into educational practices, ensuring that students are equipped with the tools they need to succeed in an increasingly digital world.

6. Conclusions

This study provides robust quantitative evidence that digital learning technologies significantly shape the English learning strategies of undergraduate students. In the New Normal era, tools such as YouTube, online dictionaries, translation apps, and social media are not merely supplementary but integral to the development of metacognitive, cognitive, and social-affective learning practices.

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