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Research Article

EFL Learners' Technology Integration in English Language Learning

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Abstract

This study is a significant effort to investigate how English as a Foreign Language (EFL) learners use technology and digital literacy abilities to learn English in speaking, listening, reading, writing, and vocabulary based on their experiences and viewpoints. Technology has become crucial to teaching and learning in the twenty-first century. First-year college students at two renowned Chinese universities and colleges responded to the study, which was carried out using a quantitative research design and descriptive methodology. The results revealed that the respondents used technology for their English language learning seasonally and had a modest level of proficiency in digital literacy. The conclusion is that to master a language; learners must still be technologically literate. The advantages of utilizing technology in teaching the English language are not sufficiently studied.

Keywords: Technology, English Language Learning, EFL Learners

Introduction

The advent of technology has caused a revolution over the past two decades. The pervasive use of technology has altered the nature of many sectors and has had an impact on how people interact and function in society (Shyamlee & Phil, 2012). Due to the development and growth of technology in recent years, the topic of incorporating contemporary databases in the educational process has come up increasingly frequently. In this way, technology not only provides new technological tools but also a new style and method for language teaching and learning.

Early users and supporters of integrating technology in the classroom David Warlick emphasized the importance of technology in education, referring to it as "the pen and paper of our time" and "the lens through which we perceive much of our world. "In addition, technology has not only provided opportunities but also challenges for schools and institutions if they are slow to adopt it (O'Neill et al., 2004).

Furthermore, the COVID-19 pandemic has demonstrated that technology can overcome barriers caused by distance and enable basic and higher education to reach and teach learners effectively. The COVID-19 epidemic has also underscored the significance of using digital tools and developing digital literacy in the study and teaching of languages, primarily the English language (Alakrash & Abdul Razak, 2021).

Technology advancements have always gone hand in hand with both the expansion of English and they are currently altering the way we interact, claim Shyamlee and Phil (2012). It is reasonable to assert that the development of technology and the internet has aided in the expansion of the English language at a time when many people have access to computers because English is widely used throughout the world in fields such as technology, science, education, and most notably economics.

A few instances of how technology advancements are currently influencing several facets of language learning include the use of Learning Management Systems (LSM), the shift to autonomous, self-paced, collaborative learning, and socio-constructivist target identification strategies. There are several technological tools available to teachers and students for teaching and studying languages. These include audio cassettes, the Internet, electronic dictionaries, radio, television, CD-ROM, computers, C.A.L.L., and C.A.L.L. Additionally, they could be PowerPoint slides, movies, DVDs, or VCDs. As cited by Phil & Shyamlee, (2012), according to Chang and Hsu (2011), online language learning has "become the most appealing to the needs of the digital natives"

It is still difficult to choose and incorporate these technology tools into the actual processes of English teaching and learning. As a result, several related concepts have developed as researchers look for novel ways to incorporate technology into education and enhance learning. The subsequent research will examine the concepts, relationships, habits, benefits, and downsides of digital literacy and the use of technology in language learning.

Research Questions

The core intention of this study was to determine and analyze the degree of technology integration of EFL learners in English language learning. Specifically, it sought to answer the following research queries:

1. What degree of proficiency do EFL students have in terms of digital literacy?
2. How often do EFL learners integrate digital technology in English language learning along
   2.1. Listening
   2.2.Speaking
   2.3. Reading
   2.4. Writing
   2.5. Vocabulary?

Literature Review

This section presents the discussion on the different research related to the topic under study.

Digital Literacy

The same definitions are used by academics with a variety of interests in computer literacy. The main topic of Hague and Payton's (2011) study was how to make a variety of activities and cultural items accessible, understandable, and supported via digital technology. Digital technologies, including hardware and software, are used for social, recreational, and instructional purposes in schools and at home, according to Ng (2012), who highlighted the variety of literacies associated with their use. Son (2015) thought that becoming technologically knowledgeable included learning how to use digital tools and gadgets for certain goals.

What is worth mentioning is that sometimes the terms ‘digital literacy’ and ‘digital competence’ are used to underpin each other. In the EU framework of key competencies for all citizens (European Commission, 2006), digital competence is considered one of eight key competencies. It was described that: “The confident and critical use of Information Society Technology (IST) for work, play, and communication is referred to as digital competence.” It is supported by fundamental ICT abilities, such as using computers to interact and take part in collaborative networks over the Internet and to retrieve, evaluate, save, produce, display, and exchange information.

Martin (2005) expanded on the ability to use digital technologies by including understanding and attitudes about using technology in context. Additionally, he highlighted several skills that should be covered, including identity, access, management, integration of digital resources, and interpersonal communication. Most of the components of digital literacy described in the definitions are mirrored in the statements in the questionnaire used to gauge the respondents' proficiency in terms of their level of digital literacy.

Digital literacy and Technology Integration

Integration of technology and digital literacy are mutually beneficial. In this study, the term "digital literacy" refers to the capacity, cognition, and attitudes of using technology for learners' self-evaluation. While technology integration, for instance, focuses on the actual use of technology in teaching and learning, the frequency of application is dependent on learners' experiences.

Technology integration, according to Oliver et al. (2012), can assist students in developing their skills as competent IT users as well as information seekers, analysts, and evaluators. The same study went on to argue that the practices of technology integration can also help students become better problem-solvers, decision-makers, users, communicators, and creative collaborators of technology. Practices of technology integration assist students in becoming properly digitally literate in this way.

According to Gilakjani's (2017) argument, students who use technology not only actively participate in the learning process but also get information from it. They must choose, receive, transfer, and use facts as they fully integrate them into their language study. As a result, when students use technology in their daily life, they need to be digitally literate. Moreover, learners can get updated information and knowledge from the Internet henceforth to extend their views of understanding and apply the knowledge to their learning, work, and daily life. Through the above arguments, the interaction between digital literacy and technology integration was well illustrated.

Implementing Technology in Language Learning

What exactly does "technology integration" entail then? Technology integration, according to Dockstader (1999), includes both student and teacher use of technology to carry out routine teaching and learning tasks more effectively and in ways that will change these tasks. Students use technology to enhance the learning environment and submit assignments online. The study's use of technology, according to Hennessy,

Ruthven, and Brindley (2005), may have been appropriate for its intended audience. When it comes to how to use technology in language learning and teaching, several academics have different categories. According to Warschauer et al. (2004), technology may be used in language instruction for cognitive and social reasons. Cognitively, learners can generate knowledge out of it when their exposure to language is significantly increased using technology in language acquisition. With the use of technology, students can access real-world social situations to practice language skills despite distance and time, which is referred to as social integration.

Moore (2009) divided the technology into three categories: onsite, hybrid, and online. For each area, he offered a summary of some pertinent technologies. For the first category, "onsite usage of technology" refers to whole-group teacher-led English language teaching that happens in a classroom or computer lab. While in blended learning, technology is utilized to augment the main course content and can be used in labs, classrooms, and locations outside of the classroom, such as the home, library, and community centers, without a teacher present. The specific technologies used in blended mode are built based on onsite mode and computer-mediated communication (CMC)-a interactive online platform, and web-based learning (including project-based learning, games, etc.). The third type of integration is entirely Internet-based with or without teacher involvement and was named Computer-mediated distance education (CMDE).

Consequently, depending on the classification and scope, technology use in English learning can occur both within and outside of the classroom. To enhance the learners' fundamental education, it is employed in a hybrid form of technological integration.

The benefits of Technology Integration in Language Learning

A framework for instruction and learning is provided by technology integration. Numerous research has indicated the advantages. The benefits of using technology in language acquisition are discussed in the sections that follow, starting with general benefits and moving on to more focused benefits for vocabulary and speaking, listening, reading, and writing. With the aid of technology, children can learn at their rate and level and frequently discover their interests and aptitudes. Students take control of their education and actively participate in it. Technologies help learners' physical and mental development and engage them in data processing, which promotes higher levels of thinking ability (Farahani et al, 2015). According to other studies, technology can reduce learners' concerns about learning and encourage more communication, which helps students learn new skills and become more independent (Ozerol, 2009).

By the 2006 book by Cummins, Brown, and Sayers, adult English language learners may have the chance to learn more than is taught in a formal program if technology is used to supplement their training. It will now give students greater chances to master language and literacy. Web 2.0 platforms promise to provide more useful, inexpensive, and accessible language learning tools and apps. (Moore, 2009).

According to Altun (2015), there are benefits to utilizing technology in English language teaching and learning. He added that when "computer, internet, smart boards, mobile phones, video games, music players, etc. are employed in the learning of the target language, etc., technology can be used to improve English language instruction and learning." Additionally, he concluded that traditional methods are still thought to be helpful for language learners despite technology-based training's significant impact on teaching and learning. Utilizing technology can increase students' motivation, linguistic awareness, and proficiency in languages other than English.

As for English listening, since it is an active process that requires the learners to identify the sounds, decode them and understand the meaning of words by context, technology has the advantage of presenting learners with authentic audio videos with text support through various forms such as Video channels, websites, Apps, Audiobooks online classes, etc.

There is little doubt that countless academics have studied how technology affects listening comprehension. Mohamadkhani et al. showed in a 2013 study how the use of modern technology, in particular audio files, has a significant impact on how well youngsters can listen. Another study, Wagner (2006), investigated how visual aids affected active listening and concluded that they assisted listeners in reaching more certain judgments, which enhanced listening abilities.

Speaking is a productive skill that involves using speech to express meaning to other people in certain contexts. It involves fluency, pronunciation, grammatical accuracy, etc. Technology can provide learners with opportunities for self-paced interactions, provides privacy, and a safe environment where mistakes are corrected, and exact feedback is given.

In 2005, Volle studied how a Spanish-language online course affected students' speaking skills. The researcher concluded that the program's technological integration considerably improved students' speech abilities by comparing the audio recordings taken before and after the course. In their 2011 study, Juana and Palak examined how podcasting affected Spanish-speaking speaking abilities. After six months of integration, it was found that the regularity and variety of specified weekly podcasting projects helped learners' speaking abilities. However, the observation indicates that the problem with employing English speaking and listening skills is that they are not thoroughly practiced in China's classroom environment. Fortunately, there are digital tools that can help to facilitate the speaking and listening process by providing online spaces for students to continue developing these skills.

Vocabulary, reading fluency, background knowledge, and comprehension were just a handful of the components of reading comprehension. Reading skills are enhanced by computer technologies because of the quantity of reading content available and the method that information is delivered. Newspapers, online news articles, blogs, transcripts, film titles, as well as other technical reading aides are examples.

Researchers have discovered that learners can increase their sight word vocabulary, fluency, and comprehension with the use of technology. According to Green (2005), computers can boost older pupils' attention levels while maintaining a straightforward and basic text. Another advantage of utilizing computers to teach reading is that they provide rapid feedback on performance and extra practice as necessary.

In terms of writing skills that include all the knowledge and abilities related to expressing ideas through the written word, it requires correct grammar, punctuation, spelling, etc. Computer technology can be used in many various approaches to improve writing abilities. Some commonly used writing platforms include Microsoft word, e-mails, blogging, social media posts, websites, and so on.

Technology tools, according to Peregoy and Boyle (2012), can enhance the student's ability to read and write because of their user-friendly qualities, particularly by allowing easy access to educational resources and a positive learning environment. Learning is therefore occurring much more quickly and effectively thanks to the incorporation of technology into reading and writing skills.

Finally, research has shown that vocabulary affects fluency, comprehension, and student accomplishment. A broad vocabulary is important for effective speaking, listening, reading, and writing. Thus, Vocabulary is a foundational component of effective language learning. It also has a significant impact on most academic standards. The technology for vocabulary can be reference tools such as e-dictionary, games and quiz apps, e-books, and website learning. Technology can offer a text-based, interactive environment where students are required to employ strategies and are given several opportunities to learn new words and their meanings. (Livingstone & Wirt, 2003)

Wiki technology has been used in studies by Costley (2014) and Lin & Yang (2011) (as quoted in Gilakjani, 2017) to investigate how it might help language learners. The findings demonstrated that getting access to the instructor's immediate feedback while utilizing this technology was very beneficial for students. Learning vocabulary, spelling, and sentence structure through reading the work of peers is another benefit of using this technology for students.

Issues and problems with Technology Integration in Language Learning

The use of technology can provide a text-based, interactive environment where students are challenged to use techniques and given numerous opportunities to acquire new terms and their definitions. (Livingstone & Wirt, 2003) A study by Warni et al. (2018) looked at senior high school pupils learning autotomy outside of the classroom and found out that various technology tools such as TV, laptop, and mobile phone with interconnection have become part of student’s daily life. Although every student in the study is aware of how helpful technology is for learning English, this does not mean that they will all use it to its fullest potential.

Alakrash and Abdul Raza (2021) observe that there is now only a minimal level of use of technology in EFL classrooms because of its cost, lack of training, and perceived restrictions. The effectiveness of technological innovation in EFL classes is likewise not entirely obvious. Furthermore, they said that the main motivation for COVID-19 training was the lack of digital literacy among teachers and pupils. It can be challenging for these teachers to grant their students access to online resources. For teaching and learning to be successful, both teachers and students must be proficient in using technology.

Nash (2020) backed up the idea that to effectively use the digital environment, language teachers and students must have the necessary digital literacy. Learners will eventually need to be digitally literate to succeed in both their academic and professional efforts as digital technology become more pervasive in society. It is crucial to have exact knowledge of the learners' technology integration practices and digital literacy proficiency to better understand how technology integration promotes teaching and learning activities in this approach.

To help students, improve their four language skills, not enough research has been done on the use of digital technologies in teaching and learning English. Evidence from the literature suggests that technology-based uses in English language learning have gotten more attention than technology-based language learning that covers all English language skills, including listening, speaking, reading, writing, and vocabulary, particularly in the context of Chinese EFL.

Recently, increasing focus has been placed on teaching English to Chinese students, particularly college students. Most college students recognize the need and benefit of studying the English language, yet many lack the knowledge and experience needed to do so successfully. As technology and the Internet have proliferated, an increasing number of movies, audio files, websites, etc. have emerged into the public's awareness and can be used as supplemental resources for learning English. It is critical to understand whether this contemporary technology can aid EFL students in their language acquisition. Research on how technology is used in China is necessary for a more complete understanding, even though it has already provided some useful knowledge.

However, there are few domestic-related studies in China because college English learning in China is still more inclined to the setting of a traditional English classroom. It cannot but admitted that there are certain extents of integration of technology involved in a classroom setting, such as using PowerPoint presentations, projectors, watching movies to learn English, etc. However, learners' awareness of using technology to learn English is not fully raised, and the role of technology has not been highlighted. In terms of online resources, there is no such English-based video platform like YouTube or many English-language websites like Google in China. Most of the online resources, such as videos, and websites are mainly in the Chinese language. Though there are emerging English learning Apps, their popularity and effectiveness are not clear.

Chinese college students studying English as a foreign language (EFL) employ technology to aid them in learning vocabulary and the four language skills. The survey used was adapted from a 2021 study by Alakrash and Abdul Raza. Based on their questions and statements, the researcher made some modifications to the number of statements and the descriptions applicable in the Chinese context. For instance, the researcher replaced YouTube and Netflix with Bilibili and Tencent Video as the formal ones are not accessible in China. Similar modifications were applied to other statements. In this study, not only general digital literacy but also specific technology integration methods are integrated, such as video, audio, e-book, websites, chat tools, and Apps in the four skills of English. It is a relatively comprehensive investigation and analysis of this field. The researcher wants to compensate for China's dearth of related studies on EFL.

Methodology

In the current use of a quantitative research design, the descriptive approach was adopted. Data collection was done using the questionnaire.

Participants

The purpose of this study was to evaluate the frequency of technology integration activities among students in China, where English is taught as a foreign language, and their degree of competency in digital literacy. Two colleges or universities were selected to collect data, one located in Zhengzhou city and a Zhengzhou in Shanghai city, China. Using the convenience sampling method, a total number of 59 first-year college students' responses were collected in this study.

Instruments of the Study

he "Digital technologies for learning and teaching practices and literacy" survey form of Alakrash and Abdul Raza (2021) adopted was adjusted to collect data relevant to the goal of the current work. The reliability test was conducted, and the result is perfect since it indicates a high level of consistency and reliability and a score higher than 0.9. General information, a self-evaluation of digital literacy, and frequency of technology integration made up the three elements of the new poll. The essential information section contained the learners' year level, significance, and the number of hours per week spent studying English. A 4-point Likert scale was utilized for the

questionnaire's two main sections. The questionnaire comprises ten statements for digital literacy competence and 20 accounts for the frequency of technology integration. Each skill—listening, speaking, reading, and writing—has four words for the frequency of technology integration and four for measuring vocabulary learning.

Data Gathering Procedures

Following the adopted questionnaire's modification, the researchers used the web-based survey platform Tencent Questionnaire (https://wj.qq.com) to contact 10 EFL students and collect data for the reliability test. To send the online questions utilizing the Tencent Questionnaire platform in their respective group chats so that their students could access them, the researcher solicited assistance from two instructors working in the chosen colleges or institutions. This online and web-based survey promotes convenience for researchers and respondents despite the barriers of time and space. Data was collected and presented simultaneously in both excel documents that can be downloaded and the website page that can be viewed.

Treatment of Data

Though a total number of 59 questionnaire responses were collected, the researcher scanned and ruled out 3 invalid responses. Two of them did not belong to the first-year college students' criteria and one answered the questions straight-lined which means the respondent chose the same answer choice repeatedly (e.g., the first answer option). Among the respondents, 15 have majored in foreign language studies such as Japanese, German, Spanish, etc. 15 majored in Computer Science. 14 respondents majored in Chinese Medicine, and 12 in Medicine in general. Nearly half of the respondents (42.9%) spent less than 3 hours a week in English language learning. 55.4% of them spent 3-8 hours in English learning weekly. Only 1 respondent (1.8%) spent more than 8 hours a week in English learning.

To determine one's level of proficiency with digital literacy, the researcher used scores of weighted means as the measurement. The scores with the qualitative value and description were presented as: 3.26-4.00 (high level of competence); 2.51-3.25 (Moderate level of competence); 1.76-2.50 (Low level of competence); 1.00-1.75 (Very low level of competence). Regarding the frequency of technology integration, percentages were mainly used along Never, Sometimes, Often, and Always. As a supplement, weighted means were also used for the general implications.

Ethical Considerations

The investigation was conducted in compliance with the advice and moral guidelines established for academic research. Concerns for the respondents' welfare, their consent, and the confidentiality of the data were implemented as ethical considerations. The respondents were told about every step of the consent process, from the interview to the questionnaire's administration. The information was handled with complete discretion.

Results

The aim of this paper is to identify the EFL learners' use of technology to improve their English language learning. This section presents the findings according to the study's research questions.

Level of Digital Literacy of the Respondents

The respondents showed strong agreement on "I can use digital tools (WeChat, Email, etc.) to share information" with a Weighted Mean/Average (WA) of 3.43, and "I can use modern apps like Zoom and Voov, etc." with WA=3.41 which indicate a high level of competence along these two aspects. However, the respondents showed their strong disagreement on "I know to use Learning management systems (LMS) like Moodle, CANVAS, and others, with WA=1.61 which indicated a negligible level of proficiency.

Table 1. *Level of Digital Literacy of the Students*

Statements	*Mean*	*Descriptions*	*Rank*
I can use digital tools (WeChat, Email, etc.) to share information.	3.43	High level	1
I can use modern apps like Zoom and Voov etc.	3.41	High level	2
I can use presentation tools (Microsoft PowerPoint, etc.).	3.18	Moderate level	3
I can search, locate, and get access to the resources I need to learn the English language from the Internet.	2.93	Moderate level	4
I can use tools for online communication	2.86	Moderate level	5
I like the modern technology-based learning style.	2.79	Moderate level	6
I can identify and control digital resources, including creating favorites, links, and folders.	2.59	Moderate level	7
I can assist in learning across time and space boundaries using technology.	2.59	Moderate level	7
I can take part in a virtual academic meeting using Zoom or Voov to improve my English.	2.48	Low level	8
I know to use Learning management systems (LMS) like Moodle, CANVAS, and others.	1.61	Very Low level	9
Average	*2.79*	*Moderate level*	

All the statements on the ability to use presentation tools (WA=3.18), to search, locate, and access resources (WA=2.93), I can use tools for online communication (WA=2.86) as well as and the favorable attitude toward technology-based learning (WA=2.79), the respondents showed agreement and indicated their moderate competence along. The general weighted mean of all the statements 2.79, which is categorized as Agree, indicated that the respondents have moderate digital literacy competence

Table 2. *Technology Integration in English Listening*

Statements	*Mean*	*Descriptions*	*Rank*
I use (Blibli, Tencent Video, etc.) to improve my listening skills	2.39	Sometimes	1
I listen to English News channels (BBC news, VOA English, etc.) to improve my listening skills	1.91	Sometimes	2
I use digital audiobooks to improve my listening skills	1.88	Sometimes	3
I listen to (Lizhi FM, Himalayas, etc.) to improve my listening skills	1.82	Sometimes	4
Average	*2.00*	*Sometimes*	

Most respondents use technology for listening occasionally or frequently. There are still quite a few those who have never used it. While relatively few people always incorporate technology into their listening to English.

The researchers also calculated the weighted means for each statement, “use Blibli, Tencent Video, etc. with WA=2.39, “listen to English News channels” with WA=1.91, “use digital audio books” with WA=1.88, and listen to (Lizhi FM, Himalayas, etc.) with WA=1.82, additionally to the general WA=2.00 all indicate a frequency of sometimes use these technological means in listening.

Table 3. Technology Integration in English Speaking

Statements	*Mean*	*Descriptions*	*Rank*
I use English-speaking practice apps (Liulishuo, Shanbei, etc.) to practice my speaking skills	2.39	Sometimes	1
I use an e-dictionary with pronunciation to check my pronunciation	2.16	Sometimes	2
I use online applications such as (Skype, zoom, Voov, etc.) to practice speaking	1.98	Sometimes	3
I interact with English native speakers through a special learning website to improve my speaking skills	1.93	Sometimes	4
Average	*2.12*	*Sometimes*	

Video conferencing tools may be widely used however, the intention does not necessarily to be used for practicing English speaking.

Most of the respondents sometimes or often use technology in speaking. There are still a considerable number of them never used it. While only a few always integrate mentioned technology means in their English speaking, the result on this aspect is better than in Listening.

The weighted means for each claim were also established by the researchers. The weighted mean, for instance, was 2.39 for "use English speaking practice applications," 2.16 for "use an electronic dictionary to verify my pronunciation," 1.98 for "use online tools like Skype, Zoom, Voov, etc.," and 1.93 for "interact with English native speakers through a specialized learning website." In general, the respondents ‘sometimes’ use technology aids in English speaking practices.

Table 4. *Technology Integration in English Reading*

Statements	*Mean*	*Descriptions*	*Rank*
I use online learning websites to improve my reading skills	2.18	Sometimes	1
I use digital apps such as Bohe and etc to enhance my reading skills	2.07	Sometimes	2
I read online magazines and newspapers to improve my reading skills	1.95	Sometimes	3
I use E-book to read English books to enhance my reading skills	1.89	Sometimes	4
Average	*2.02*	*Sometimes*	

Most of the respondents sometimes or often use technology in reading. There are still a considerable number of them never used it. While only a few always integrate mentioned technology means in their English reading.

The researchers also calculated the weighted means for each response. For example, "I use an e-book to read" had a weighted average of WA=1.89, while "I use online learning websites," "I use digital apps," and "I read online periodicals and newspapers" had weighted averages of WA=1.95, "I use digital apps," respectively. This occurs in addition to the conventional WA=2. All these illustrations are employed frequently and erratically.

Table 5. *Technology Integration in English Writing*

Statements	*Mean*	*Descriptions*	*Rank*
I use online translation tools (Youdao, Baidu translation etc.) to improve my writing	2.91	Often	1
I use grammar checker Apps to check my writing	1.95	Sometimes	2
I use Chatbox (WeChat, Messenger etc.) to practice writing in English with my classmates or native speakers	1.89	Sometimes	3
I use writing enhancement apps such as Duolingo etc to improve my writing skills	1.79	Sometimes	4
Average	*2.14*	*Sometimes*	

The researchers determined the weighted means for each claim, with "use online translation tools" having a WA of 2.91 indicating frequent use. Others, with WA values of 1.95 for "use grammar checker apps," 1.89 for "use chat box," 1.79 for "use writing enhancement apps," and 2.14 overall, suggest a frequency of occasionally using these technological tools in writing.

It can be assumed that most respondents use technology in their English writing occasionally or regularly. There are still a considerable number of them never used them. While only a few always integrate mentioned technology means in their English writing. What is worth mentioning, the respondents show a higher frequency of using translation tools to improve writing.

Table 6. *Technology Integration in English Vocabulary*

Statements	*Mean*	*Descriptions*	*Rank*
I use e-dictionaries to learn new words	2.57	Often	1
I read e-books in English to learn new vocabulary	2.18	Sometimes	2
I use web-based flashcards to learn new vocabulary	2.07	Sometimes	3
I use games such as (Cross Words, Puzzles, and Word finder) to enhance my vocabulary competence	1.98	Sometimes	4
Average	*2.2*	*Sometimes*	

The researchers also calculated the weighted averages for each claim, and they found that the claim "use e-dictionaries to learn new terminology" had a weighted mean of 2.57, indicating that it was often used. Other responses were "read English e-books," "play games like (Cross Words, Puzzles, Word Finder)," and "use web-based flashcards." The total WA of 2.2 indicates that these technological aids are sporadically employed in writing.

It can be inferred that most respondents utilize technology either frequently or occasionally. There are still a considerable number of them never used them. While only some always integrate mentioned technology means in their English vocabulary learning. Noticeably, the respondents show a higher frequency of using e-dictionaries to learn new vocabulary.

Discussion

The respondents in this study had a modest degree of proficiency in most areas of digital literacy, which suggests that more time and effort must be put into using technology and becoming more proficient. The digital literacy of those college students still must be improved. The study's results on students' levels of digital literacy typically corroborate claims made by many students that EFL learners have low levels of digital literacy. The results of this study were in stark contrast to Alakrash and Abdul Razak's study from 2021, which showed that children in Arab international schools in Malaysia displayed a good level of both fundamental and didactic digital literacy abilities. It is thought that EFL students still lack digital knowledge and skills even though they are now considered to be digital natives.

In this study, the respondents also demonstrate their agreement on being able to use presentation tools, communication tools, websites, and video conferencing tools. The study of Son et al. (2017) discovered that learners typically thought their abilities for using social networking services, video sharing websites, web search engines, and dictionary applications were "Good" or "Very Good," which also supports some of the findings. The data demonstrated a high degree of sharing information via digital tools like WeChat, Email, etc. despite all the other elements indicating a moderate level, indicating that communicative uses of the technology are more frequently employed. Warni et al. (2018) in their research found out most students only occasionally used technology in their outside-of-classroom English learning. However, learners like the way that technology provided for them to cooperate with their friends or “collaboratively learn” in various ways by emailing, chatting with friends when encountering difficulties in learning the language, and asking their friends to help correct errors.

The study also showed how popular conferencing apps like Zoom and Voov are. However, the level is low when it comes to using conferencing applications to take part in academic meetings and improve one's English language skills. This indicates that the

conferencing apps are not mainly used for English classes and the respondents might have difficulty understanding English academics. As Alakrash and Abdul Razak (2021) explained the relationship between mastery of technology and proficiency in English. It was established that students who are proficient in both English and computer use can become technology experts. Furthermore, it was asserted that proficiency in English is a prerequisite for proficiency in modern technology, increasing expertise in the field of technology.

The study hypothesized that the very low usage of learning management systems (LMS) would also be related to the terminologies' unfamiliarity. Since they have only recently enrolled in college and are beginning to face the digital management of higher education that they have not yet encountered in their prior courses, first-year college students rarely hear about LMS. They might have encountered other forms of LMS rather than Moodle or CANVAS, while they are not aware that these technology integrations belong to LMS. Additionally, this has indicated the need for improvement in this aspect for educators and administrators of the university to orient the students with the effective use of LSM.

Many of the respondents use technology in English learning occasionally or frequently when asked about its frequency of integration. There are still a good number of them that have never been utilized. While only a few of them always integrate mentioned technology means in their English learning. The general frequency of technology integration is sometimes. Little indication of differences in vocabulary acquisition, reading, writing, speaking, or listening was found in this study. But according to a study by Alakrash and Abdul Razak from 2021, youngsters utilized digital media most frequently to increase their vocabulary and the least frequently to improve their reading skills.

These variables have reduced the respondents' frequency of technology integration activities in English since they are learning English as a second language and only devote 0–8 hours per week to English study. This is one theory for the outcomes. In addition, there are several additional complexes and varied elements that affect their frequency. The actual integration of technology in English learning may be affected by difficulties with technological support such as computer accessibility, internet connection, secure platforms, as well as learners' motivation, learning autonomy, and English teachers' orientation and intervention. This will affect how frequently they integrate technology.

Because the use of technology in adult education settings is still relatively new, Warschauer et al. (2004) point out that there can be restricted access to computers, video and audio capabilities, the Internet, software licensing, and technical assistance. Teachers of both pupils currently do not have optimal access to technological assistance. Even though several studies have shown how using technology has increased student autonomy and motivation when studying English. On the other side, which examines how language learners' autonomy and motivation will affect how they utilize technology, there hasn't been much research done. The issue of inadequate professional training and development is also brought up by Ertmer et al. as a major impediment to the use of technology in the classroom (2012). In the end, how instructors use technology will depend on their attitudes and views about both pedagogy in general and educational technology. They will consequently gradually consider how the child is learning this material.

According to research done by Son et al. (2017) in universities in Australia and Japan, inadequate facilities (56%) student ignorance (54%), a lack of funding (52%), and a lack of training (49%) are the biggest obstacles to English language learners using digital technologies for language learning. Lack of knowledge (41%), resources to support them (37%), time (34%), and talent (34%) were identified to be the most common barriers for students using digital technology for language acquisition while they were in Japan. Considerations for employing digital technology for language learning were given by this information.

Online dictionaries and translation tools were utilized by all the respondents more frequently than any other tool, demonstrating that their use of technology in English language learning is still primarily focused on assisting them in better task completion and quicker idea comprehension. Additionally, according to Warni et al. (2018), most students frequently use Google Translate to look up the definitions of words they don't understand. Son et al. (2017) also revealed that many participants had a propensity to frequently utilize electronic dictionaries.

The findings of the examination into how frequently technology is incorporated into English language acquisition differed from those of Alakrash and Abdul Razak's study, which was the previous step (2021). Their study's findings demonstrated how frequently digital technology was used by both EFL instructors

and students. They contend that the widespread use of digital technologies can be attributed to the Pandemic, which primarily relied on distance learning for both formal and informal purposes. Because of its broad use, digital technology is easier to integrate into educational settings. During this time, online classes were conducted using digital tools by both teachers and students.

Conclusion

To conclude, researchers found that interviewing EFL students to determine how they were utilizing technology based on their perceptions and experiences was a worthwhile endeavor. Despite the study's limited sample size, the results shed some light on the learners' technological literacy. Since they are used to studying English from books, many study participants think that learning English primarily entails remembering notes. There has not been much study on technology integration in low-tech learning situations as a result. To improve students' technology integration and digital literacy skills based on the factors that affect digital language learning in particular contexts, it is advised to further examine the level of digital literacy of language learners in diverse scenarios.

References

Alakrash, H.M., & Abdul Razak, N. (2021). Technology-based language learning: investigation of digital technology and digital literacy. *Sustainability: 13(21),* 12304.

Altun, M. (2015). The integration of technology into foreign language teaching. *International Journal on New Trends in Education and Their Implications. 6(1),* 22-27.

Chang, C. K., & Hsu, C. K. (2011). A mobile-assisted synchronously collaborative translation–annotation system for English as a foreign language (EFL) reading comprehension. *Computer Assisted Language Learning, 24(2),* 155–180.

Costley, K. C. (2014). The Positive Effects of Technology on Teaching and Student Learning. Online submission.

Cummins, J., Brown, K., & Sayers, D. (2006). Literacy, technology, and diversity: Teaching for success in changing times. Boston: Pearson.

Ertmer, P. A., Ottenbreit-Leftwich, A. T., Sadik, O., Sendurur, E., & Sendurur, P. (2012). Teacher beliefs and technology integration practices: A critical relationship. *Computers & Education, 59(2), 423-435.*

European Commission. (2006). Recommendation on key competencies for lifelong learning. Council of 18 December 2006 on key competencies for lifelong learning,2006/962/EC, L. 394/15.

Dockstader, J. (1999). Teachers of the 21st century know the what, why, and how of technology integration. *THE journal, 26(6),* 73-74.

Farahani, P. Z., Bahamiriyan, M., & Sadeghi, M. (2015). Information and communication technology in education of Iran. *International Journal of Economy, Management and Social Sciences, 4(1),* 100-104.

Gilakjani, A. P. (2017). A review of the literature on the integration of technology into the learning and teaching of English language skills. *International Journal of English Linguistics, 7(5),* 95-106.

Green, T. (2005). Using technology to help English language students develop language skills: A home and school connection. *Multicultural Education, 13(2),* 56-59.

Hague, C., & Payton, S. (2011). Digital literacy across the curriculum. *Curriculum Leadership, 9(10).*

Hennessy, S., Ruthven, K., & Brindley, S. (2005). Teacher perspectives on integrating ICT into subject teaching: Commitment, constraints, caution, and change. *Journal of Curriculum Studies, 37(2),* 155-192.

Juana, M. B., & Palak, D. (2011). Podcasting as a means of improving Spanish speaking skills in the foreign language classroom: An action research study. *Networks, 13(1),* 1-18.

Lin, W., & Yang, S. (2011). Exploring students' perceptions of integrating Wiki technology and peer feedback into English writing courses. *English Teaching: Practice and Critique, 10(2),* 88-103.

Livingston, A., & Wirt, J. (2003). The Condition of Education 2003 in Brief. NCES 2003-068. National Center for Education Statistics.

Martin, A. (2005). DigEuLit – A European framework for digital literacy: A progress report. *Journal of literacy, 2 (2),* 130–136.

Mohamadkhani, K., Nazari Farokhi, E., & Nazari Farokhi, H. (2013). The effect of using audio files on improving listening comprehension. *International Journal of Learning & Development, 3(1),* 132-137.

Moore, S. C. K. (2009). Uses of Technology in the Instruction of Adult English Language Learners. CAELA Network Brief. Center for Adult English Language Acquisition.

Nash, C. (2020). Report on digital literacy in academic meetings during the 2020 COVID-19 lockdown. *Challenges, 11(2),* 20.

Ng, W. (2012). Can we teach digital natives digital literacy? *Computers & Education, 59(3),* 1065–1078.

Oliver, A., Osa, J. O., & Walker, T. M. (2012). Using instructional technologies to enhance teaching and learning for the 21st century preK-12 students. *International Journal of Instructional Media, 39(4),* 283-295.

O'Neill, K., Singh, G., & O'Donoghue, J. (2004). Implementing eLearning programmes for higher education: A review of the literature. *Journal of Information Technology Education, 3(1),* 313-323.

Ozerol, G. (2009). Perceptions of EFL primary school teachers towards CALL. MA thesis. Institute of Social Sciences, English Language Teaching Department, Cukurova University, Turkey.

Peregoy, S., & Boyle, O. (2012). Reading, writing, and learning in ESL: A resource book for teachers. New York: Allyn & Bacon.

Shyamlee, S. D., & Phil, M. (2012). Use of technology in English language teaching and learning: An analysis. In *International Conference on Language, Medias and Culture* (Vol. 33, No. 1, pp. 150-156).

Son, J. B. (2015). Digital literacy.

Son, J. B., Park, S. S., & Park, M. (2017). Digital literacy of language learners in two different contexts. *JALT Call Journal, 13(2),* 77-96.

Volle, L. M. (2005). Analyzing oral skills in voice e-mail and online interviews. *Language Learning & Technology, 9(3),* 146–163.

Wagner, M. (2006). Utilizing the visual channel: An investigation of the use of video texts on tests of second language listening ability. Unpublished doctoral dissertation.Teachers College, Columbia University, New York.

Warni, S., Aziz, T. A., & Febriawan, D. (2018). The use of technology in English as a foreign language learning outside the classroom: An insight into learner autonomy. *LLT Journal: A Journal on Language and Language Teaching, 21(2),* 148-156.

Warschauer, M., Knobel, M., & Stone, L. (2004). Technology and equity in schooling: Deconstructing the digital divide. *Educational Policy, 18(4),* 562-588.

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