

Trainee Teachers' Readiness For English Language Learning Through Digital Technology

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Abstract

Digital technology is comprised of not only essential tools for English language teachers in their day-to-day work for teaching, but also offers marvellous opportunities for their professional grooming. Digital technology may contribute in revitalizing education to meet high aspiration of today's world. Institute of Education is offering nine English language learning and teaching courses including four compulsory English language learning courses, four specialization in English language courses and one professional English Language Teaching (ELT) course to trainee teachers in B.S Education program along with two digital technological courses for inculcating and promoting knowledge and skills of English language among trainee teachers. The study was aimed to find out readiness among trainee teacher for English Language Learning through Digital Technology. All the trainee teachers in BS Education programs were the population of the students. Sample was comprised of 204 students enrolled in BS Education and B.Ed Hons programs of Institute of Education, University of Sargodha. Questionnaire was designed to collect data from students. It was concluded that trainee teachers were willing to get benefits of using digital technology for English language learning but there was no significant difference of readiness among trainee teachers for English language learning through digital technology with respect to their gender, residence, and semesters.

Introduction

Knowledge of English is important for the educational, social, cultural, economic and national progress of the country. The demand for English as a medium of education is mainly driven by the benefits it brings to the world and the wider Pakistani society. English has been the official language of Pakistan since its independence. Technology in education includes various technologies, including technological tools and resources (such as radio, television, computer, mobile, networks, internet, multimedia, software) (Thierer, 2001; Nordin, Embi and Yunus, 2009; Nordin et al., others, 2010). Yunus and Salehi (2012) pointed out that the use of digital technology in teaching English as a Second Language (ESL) is a widely discussed issue in education. A group of researchers have argued that the use of digital technology can enhance learning and provide additional teaching and learning support to language teachers (Westera & Sloep, 2001; Young, 2003; Salehi & Salehi, 2012; Yunus, Salehi & Chenzi, 2012). Many researchers have identified factors that influence teachers' acceptance and readiness to use

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digital technology in language classrooms (Capan, 2012; Virkus, 2008; Zhang, 2013; Dudeney, 2010).

According to Tamim (2014) English is being used as medium of teaching at different levels in Pakistan and availing high status due to different factors some of which are as under:

- Impact of globalization on English and its learning.
- Impact of colonization in Pakistan.
- English is language of science and technology, trade and commerce.
- English is used in most of the offices in Pakistan.
- English is preferred for good jobs in Pakistan.

Use of Digital Technology in English Language Teaching

Digital technology facilitates in provision of important tools and resources to create new and improved instruction. Technology supports student engagement and creative language learning, thinking, knowledge and collaboration. Meyer (2002) explains that online learning and teaching is a model that allows groups to create knowledge through communication and collaboration with others. Integrating technology into language teaching will help English teachers meet the global demand to replace traditional language teaching methods with educational tools and equipment. Therefore, it can be said that these tools will help students learn almost all subjects, starting from basic subjects such as mathematics, science, languages, arts and humanities. (Jorge et al., 2003) teaching, consultancy, music, international discussion, etc. (www) will make work more efficient and effective (Finger and Trinidad, 2002).

The reason for the integration of technology in teaching English can be explained as follows:

- Computers play an important role in assisting teachers, providing valuable opportunities for independent learning even if there is no teacher (Pennington and Steven, 1992).
- Technology tools continue to evolve, becoming lighter, faster, and easier to use, making them easier for teachers to use (Levy, 1997).
- Advances in technology, including a variety of media, video, audio, and text, facilitate students' interactions with academics and peer peers (Felix, 1998).
- Computers are capable of personalized learning, allowing the selection of courses and content that suit individual learning styles and interests (Oxford et al., 1998).
- Computers achieve the goals of communication teaching by creating content in a communication environment.
- Warwick and Kershner (2008) said that English teachers should be aware of the importance and benefits of technology and advocate its practical use in teaching.
- Several studies have shown that the integration of digital technology into instruction is associated with improvements in student achievement (Nakayima, 2011; Jamieson-Proctor et al., 2013).

Integration of Technology in English Language Education

The integration of technology and education has become an important part of today's teaching and is especially important in English language education (ELE). The rapid development of digital technology over the last two decades has helped create the information world now known as the information society. These communities play an important and valuable role in creating knowledge about the business world (Allen, 2009; Bhattacharya and Sharma, 2007; Binghimlas, 2009; Dighe et al., 2009).

The combination of technology and higher education brings with it many opportunities but also great challenges. Therefore, adequate investment, appropriate training, good policy implementation, strategic planning and optimization must be ensured before using the technology. These elements are important for improving learning outcomes. Roblyer and Edwards (2000) define two main approaches to technology integration: teaching methods and

instructional design models. While the teaching is based on behavioral learning theory and data processing theory, the theoretical basis of the structuring method is provided by the knowledge-based learning model. Researchers such as Ertmer (1999) and Prensky (2008) emphasize that teachers play an important role in the successful integration of digital technologies into the classroom. Integrating technology has many benefits, including improving access to educational resources, increasing engagement, and improving learning outcomes. BECTA (2004) clearly states that digital technology provides teachers with the opportunity to create a dynamic and interactive learning environment that encourages student engagement and participation. The integration of technology into English language education is changing to enhance language learning.

Readiness towards using digital technology for English Teaching

As providers of language learning and experience for students, language teachers must adapt to new teaching strategies and use digital technologies to contribute to the language learning process and content. Otherwise, teachers' limited behavioral change will become a major obstacle to the use of technology in language classrooms. Likewise, teachers' confidence and attitudes towards using digital technology will affect their classrooms positively and negatively (Bingimlas, 2009).

Some researchers also pointed out that the presence of digital technology in the classroom may cause stress in students. It requires language teachers to use technology to work in the classroom (Sang et al., 2011). Teachers' approval or disapproval of textbook technology is influenced by their attitudes (Albirini, 2006) and other factors such as their knowledge of technology (Badri li al., 2013) and their knowledge of technology. Make students aware of the use of this technology in the classroom (Keramati, 2011), knowledge and experience, age and self-confidence regarding the type of technology used (Molnár and Benedek 2013; Reading and Doyle, 2013).

Technology manages and supports teachers' curiosity, participation and monitoring of the language learning process. Williams (1991) observed that the use of supplementary materials “enables teachers to maintain classroom discipline and maintain interest in the curriculum, thereby intelligently developing knowledge and skills” (p. 26).

It is important for teachers to integrate digital technology into teaching. In this context, teacher training programs need to play an important role in training prospective teachers to integrate technology into classroom teaching. These courses should help teachers gain a broad knowledge of all subjects (UNESCO, 2008).

Yapıcı and Hevedanlı (2012) stated that teachers should have the necessary knowledge and skills to use technology in education. Educational methods and practices in pre-service and in-service training. Therefore, teachers need to acquire the necessary knowledge and skills to use digital technology and gain the confidence to use technology in the classroom. In addition, teachers need to understand the role of technology in depth in order to use it effectively in teaching (Hennessy et al., 2005). Winzenried, Dalgarno, and Tinkler (2010) stated that teachers who received ICT training were more effective in using technology for teaching purposes than teachers who did not receive training.

Ertmer (1999), Mouza (2005) and Prensky (2008) say that teachers themselves are important in the application of digital technology to the classroom environment. According to Fullan and Smith (1999), encouraging change requires a process of renewal that requires teachers to have the opportunity to challenge their current beliefs. This is particularly important because teachers are often reluctant to adopt digital technology and resist changing their practices (Cuban, 2001). Research by Cassim and Obono (2011) found a positive relationship between teachers' beliefs and the use of digital technologies.

Addressing problems and reaching effective solutions requires careful consideration of the structure and culture of the school that integrates digital technology. The design process

includes classroom environment, capacity and distribution, support, management and maintenance. Leadership is related to the school's vision and mission regarding the integration of digital technologies and providing guidance and support to all stakeholders, and most importantly, the process (Tondeur et al., 2009).

Although it is acknowledged that the technology itself does not have educational benefits, its integration depends on the participation of teachers (Sang et al., 2010). Therefore, teachers play an important role in determining educational development and innovation (Öz, 2014). As Chiu (2014) acknowledges, the necessity of digital technology has become especially evident in language teaching. Agbatogun (2012) identified several factors required for the use of digital technology in classroom teaching, including compliance with national legislation, provision of necessary technology tools and software, and ensuring that teachers have the preparation and skills to participate in classroom teaching. Education.

Challenges in Embracing Digital Technology in English Language Teaching

According to BECTA (2004) and Hew and Brush (2007), many researchers claim that there are obstacles to the successful integration of technology into education. Ertmer (1999) divides these problems into two groups: first-order constraints and second-order constraints; Both prevent teachers from using technology well in the classroom. Initial problems mostly arise from external teachers and include: (1) Lack of access to basic resources such as software, hardware, and network connections; (2) Time limits for the use of these resources in schools; (3) Insufficient legal framework (4) Insufficient training of teachers (Ertmer, 1999; Ogiegbaen and Iyamu, 2005; Toracki, 2006; Akbaba-Altun, 2006; Göktaş, Yıldırım and Yıldırım, 2009). The second limitation stems from teachers and includes: (1) teacher and student attitudes toward the use of digital technology, (2) beliefs about teaching, (3) beliefs about learning, (4) instructional design, and (5) teachers' internal resistance (Ely, 1999). ; Ogiegbaen and Iyamu, 2005; Akbaba-Altun, 2006).

The process of integrating technology into daily learning is complex, and teaching technology is not free of challenges. In many cases, students and teachers may not be able to access, process, and use information effectively (Younas et al., 2009). Therefore, it is recommended that teacher development courses focus on jointly developing teachers' self-efficacy in using and preparing technology. This involves developing beliefs in the ability to learn or perform digital technology-related skills and, to some extent, the ability to use strategies in the classroom (Ertmer, 2001, 2004).

Bates (2001) stated that the knowledge economy especially needs employees who are ready to use technology, employees who learn to use technology in their daily work, and personnel who provide employment for students. However, Mumcu et al. (2004); Ocho et al. (2007) and Eastman et al. (2010) pointed out that the lack of technological tools and infrastructure in workplaces is a major obstacle to the use of digital technology in language teaching.

Many studies have shown that lack of confidence is an important factor in the integration of technology into teaching. Becta (2004) stated that, as many studies have shown, lack of confidence is an important problem for language teachers using technology in the classroom. In Becta's survey of medical professionals (2004), this question was the most frequently answered by survey participants. Beggs (2000) stated that the main reason for teachers' lack of confidence in using technology in language classes is teachers' "fear of failure." For example, Balanskat et al. (2006) found that teachers' limited knowledge of technology causes teachers to be concerned about using digital technology and reduces their confidence in using technology in the classroom. Similarly, Becta (2004) wrote in the conclusion of her research: "Many teachers who feel that they are ineffective in using technology are concerned about the use of digital technology in front of a group of children who know more than they do." The teacher is dissatisfied and dissatisfied. It is also an important problem for the use of digital

technology in language teaching and can be caused by many factors such as teachers' digital skills, poor digital infrastructure in texts in schools, technophobia and lack of access to leadership. (Bingimras, 2009).

2. Research Methodology

2.1 Participants

The population of the study was comprised of trainee teachers of BS Education and B.Ed Hons. programs of Institute of Education, University of Sargodha, Sargodha, Pakistan. Sample was comprised of 104 trainee teachers of 4th and 6th semesters of B.S Education program including 41 male and 63 female trainee teachers who were selected through cluster sampling.

2.2 Research Instrument

A survey questionnaire with a total of 28 items was developed and used as the main instrument in this study to find out readiness among trainee teacher for English language learning through digital technologies. A total of 204 questionnaires were distributed where all respondents were asked to read the statements given and choose their answers based on 5-Likert scale ranged from 5= Strongly Agree, 4= Agree, 3= Undecided, 2= Disagree and 1= Strongly Disagree. The questionnaires consisted of 3 sections. Section A is about the demographic background of the respondents consists of 8 items that includes Name, Program of Study, Roll No., gender, Residence, program of study. The 2nd section (B) in the questionnaire was comprised of 6 items about required background information whereas 3rd Section (C) focuses more attitude of student towards learning of English. 4th section (D) comes with 12 items that looks into trainee teacher's readiness for English language learning through digital technology.

2.3 Data Analysis

Data was analysed by using using Statistical Package for the Social Sciences (SPSS) version 20. The analysis includes both descriptive and inferential analysis.

3. Results

The findings are stated according to the sections in the questionnaire and some inferential analysis.

Table 1 Demographic information of Trainee Teachers

Sr. No.	Variables	Description	F(n)	Percentage %
1	Gender	Male	78	39.40%
		Female	126	60.60%
2	Residence	Rural	92	45.10%
		Urban	112	54.90%
3	Programs	BS Education	104	51.90%
		B.Ed Hons.	100	48.10%

Table 1 shows that out of 104 samples, the numbers of males were 78 (39.4%) and numbers of females were 126 (60.6%). Respondents were asked to provide their residential information that either they were living in urban or rural area. Table 1 is showing that out of 204 samples, 108 (51.9 %) were belong to rural areas while 100 (48.1 %) were belong to urban areas. This table also shows that out of 204 number of respondents; 108 (51.9 %) belong to BS Education Program and 100 (48.1 %) belong to B.Ed Hons Program.

Table 2 Preference for language learning tools

Required Information	Frequency Result Interpretation
1. My preference for English language learning.	E-notes (73%) Traditional notes (27%)
2. My preference for completing assignments related to English learning courses.	Online E-resources (85%) Institutional library (15%)
3. I have my personal computer/Laptop at home.	Yes (40%) No (60%)
4. I have got special training/certification for using computer.	Yes (34%) No (66%)

Table 2 shows that E-notes are the preferred method for English language learning for 73% of trainee teachers, while 27% prefer traditional notes. This indicates a significant preference for electronic resources over traditional paper-based methods of English language learning. Most of the trainee teachers (85%) used online resources for completing assignments of English language learning. This suggests a strong inclination towards digital resources for academic tasks. Majority of the trainee teachers (60%) had no personal laptops. While most of trainee teachers (66%) did not get special training for using computer. This information can be valuable for designing user-friendly digital learning platforms or providing additional support for those without formal training.

Table 3 Preference for usage of internet

Required Information	Frequency Result Interpretation	Mean	SD
1. I use internet at my institution.	Always (32%)	3.24	1.110
2. I use internet at home.	Always (58%)	3.82	1.147

Table 3 shows that most of the trainee teachers (M=3.82) use internet at home while others (M=3.24) used internet at institution that indicates the resources available on the internet at home are more aligned with their needs or preferences compared to those available at the institution.

Table 4 Frequency, Mean and standard deviation of Attitude of Trainee Teachers towards English Language Learning (N=204)

Attitude towards English Language learning	Frequency Result Interpretation	Mean	SD	Trend Mean
1. English is an easy language to learn.	Agreed (70%)	3.49	1.174	
2. I like learning English language.	Agreed (71%)	3.59	1.146	
3. I face problems in reading/understanding text in English language.	Agreed (50%)	3.17	1.127	3.47
4. I face problems in writing English language.	Agreed (49%)	3.14	1.186	

5.	I face problems in listening English language.	Disagreed (45%)	2.95	1.226	3.14
6.	I face problems in speaking English language.	Agreed (54%)	3.31	1.207	
7.	I read books related to English language teaching and learning.	Agreed (55%)	3.35	1.172	
8.	I study articles related to English language teaching and learning.	Agreed (62%)	3.42	1.259	
9.	I want to become English language teacher.	Agreed (62%)	3.45	1.299	
10.	I take help from my teachers related to English language learning problems.	Agreed (67%)	3.53	1.174	

Table 4 shows statements including 1, 2, 7, 8, 9, 10 had mean score greater than 3.0 and their trend mean was 3.47 that means trainee teachers had positive attitude towards learning English language. Whereas, statements including 3, 4, 5, 6 had mean score greater than 3.0 and their trend mean is 3.14 that means trainee teachers had faced problems in learning English language.

Table No.5 Comparison of attitude of male and female trainee teachers towards English language learning through digital technology

	Gender	N	Mean	Std. Deviation	df	t	p (value)
Attitude	Male	78	33.097	6.4645	79.217	0.850	0.398
	Female	126	34.158	5.8287			

Table 5 shows that there was no significant difference of attitude towards English language learning between male trainee teachers (M=33.09, SD=6.464) and female trainee teachers (M=34.15, SD=5.828) as indicated by t-value=0.850, df=79.217 and p-value=0.398>0.05. Therefore, Ho1 “There is no significant difference of attitude between male and female trainee teachers towards English language learning through digital technology” was failed to reject.

Table 6 Comparison of attitude of urban and rural trainee teachers towards English language learning through digital technology

Group Statistics						
Resident	N	Mean	SD	Df	t	p value
Rural	92	33.812	6.593	100.02	0.367	0.715
Urban	112	33.955	5.329			

Table 6 shows that there was no significant difference of attitude towards English language learning through digital technology between rural respondents (M=33.812, SD=6.593) and urban respondents (M=33.955, SD=5.329) as indicated by t-value=0.367, df=100.02 and p-value=0.715>0.05. Therefore “H1=There is no significant difference of attitude between rural and urban trainee teachers towards English language learning through digital technology” was failed to reject.

Table 7 Comparison of attitude of B.S Education and B.Ed Hons trainee teachers towards English language learning through digital technology

Group Statistics

Semester	N	Mean	SD	Df	t	p-value
B.S Education	104	33.509	6.559	100.55	0.395	0.694
B.Ed Hons.	100	33.980	5.591			

Table 7 shows that there was no significant difference of attitude towards English language learning through digital technology between trainee teachers of BS Education (M=33.980, SD=6.559) and B.Ed Hons programs (M=33.650, SD=5.591) as indicated by t-value=0.395, df=100.55 and p-value=0.694>0.05. Therefore, H₂; “there was no significant difference of attitude towards English language learning through digital technology between trainee teachers of BS Education” was failed to reject.

Table 8 Frequency, Mean and standard deviation of Readiness of Trainee Teachers towards English Language Learning through digital technology (N=204)

Readiness towards English Language	Frequency Result Interpretation	Mean	SD	Trend Mean
1. I am interested in developing my skills and knowledge in Digital Technology for learning English language.	Agreed (54%)	3.19	1.239	
2. I think that digital technology is helpful in teaching-learning English language.	Agreed (66%)	3.55	1.032	3.56
3. I feel comfortable for use of digital technology for learning English language.	Agreed (66%)	3.52	1.079	
4. I enjoy English language learning through digital technology.	Agreed (66%)	3.63	1.124	
5. I feel that students learn English language maximum when they use Digital Technology.	Agreed (71%)	3.73	0.916	
6. I get motivation to learn English language through digital technological resources.	Agreed (67%)	3.69	1.006	
7. I develop my own digital technology resources like presentation slides, notes and assignments.	Agreed (68%)	3.52	1.132	

8.	I share contents related to English language with my class fellows and teachers through digital technology.	Agreed (64%)	3.61	1.144
9.	I use digital technological resources related to English language because these are free of cost.	Agreed (64%)	3.60	1.048
10.	I prefer to teach English language through digital technology in future.	Agreed (62%)	3.57	1.035
11.	I think that English language should be taught without using digital technology in classroom.	Disagreed (54%)	2.69	1.115 2.69
12.	I agree that digital technology should be integrated in the courses of English language teaching of teacher education programs.	Agreed (67%)	3.61	1.065

Table 8 shows statements including 1,2,3,4,5,6,7,8,9,10,12 had mean score greater than 3.0 and their trend mean is 3.56 means that most of trainee teachers were ready for using digital technology for learning and teaching English language. Whereas statement 11 had mean score less than 3.0 and trend mean was 2.69 means trainee teachers disagree that English language should be taught without using digital technology.

Table 9 Comparison of readiness of male and female trainee teachers towards Digital technological usage for English language learning

Group Statistics						
Gender	N	Mean	SD	Df	t	p (value)
Male	78	42.561	7.687	79.601	0.722	0.473
Female	126	43.634	6.975			

Table 9 shows that there was no significant difference of readiness towards Digital technological usage for English language learning between male trainee teachers (M=42.561, SD=7.687) and female trainee teachers (M=43.634, SD=6.975) as indicated by t-value=0.722, df=79.601 and p-value=0.473>0.05. Therefore “H3=There is no significant difference of readiness between male and female trainee teachers towards Digital usage for English language learning” was failed to reject.

Table 10 Comparison of readiness of rural and urban trainee teachers towards Digital technological usage for English language learning

Group Statistics						
Resident	N	Mean	SD	df	t	p (value)
Rural	92	42.983	7.627	96.795	0.389	0.698

Urban	112	43.534	6.744
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Table 10 shows that there was no significant difference of readiness towards Digital technological usage for English language learning between rural respondents (M=42.983, SD=7.627) and urban respondents (M=43.534, SD=6.744) as indicated by t-value=0.389, df= 96.795 and p-value=0.698>0.05. Therefore “H4=There is no significant difference of readiness towards Digital usage for English language learning between rural and urban trainee teachers towards English language learning” was failed to reject.

Table 11 Comparison of readiness of BS 4th and BS 6th trainee teachers

Group Statistics						
Semester	N	Mean	Std. Deviation	df	t	p(value)
BS Education	104	42.849	7.254	101.80	0.518	0.606
B.Ed Hons.	100	43.588	7.291			

Table 11 shows that there was no significant difference of readiness towards Digital technological usage for English language learning between students of Bs 4th semester (M=42.89, SD=7.254) and Bs 6th semester (M=43.588, SD=7.291) as indicated by t-value=0.518, df= 101.80 and p-value=0.606>0.05. Therefore “H5=There is no significant difference of readiness towards Digital usage between trainee teachers of BS Education and B.Ed Hons. programs towards English language learning” was failed to reject.

4. Conclusion and Discussion

Based upon the finding of the study, the following conclusions were drawn:

A majority of trainee teachers had preference for English language learning through digital devices and E-resources aligning with the increasing prevalence of digital devices and indicating the growing accessibility of technology in educational contexts (Smith, 2019). Most trainee teachers lack special training for computer use, suggesting a potential gap in their preparation for technology integration in teaching. Exploring professional development opportunities is crucial to enhance their digital literacy skills (Karsenti & Fievez, 2013). Many trainee teachers utilize online resources for completing assignments related to English learning courses, highlighting the importance of digital platforms in facilitating and enriching the learning experience (Barnes & Tynan, 2007). Most trainee teachers exhibit a positive attitude towards learning the English language, a crucial aspect for effective language acquisition that signifies a favorable learning environment (Gardner, 1985).

There is no significant difference in attitudes towards English language learning through digital technology between male and female trainee teachers, as well as between rural and urban participants, indicating uniformity in positive attitudes across diverse demographics and highlighting the inclusive nature of the educational environment (Pajares, 1996). Similarly, there is no significant difference in readiness towards digital technological usage for English language learning between trainee teachers in different programs, indicating a consistent level of preparedness across various teacher education programs (Ertmer et al., 2012). Most trainee teachers express readiness for using digital technology in learning and teaching the English language, reflecting a positive inclination that bodes well for the integration of technology in education and emphasizes the potential for enhancing language learning experiences (Means et al., 2013). The absence of significant differences in attitudes towards English language learning between various demographic groups, including male and female trainee teachers and rural and urban participants, suggesting a uniform level of readiness across diverse demographic groups (Chen, 2018).

Recommendations

The following recommendations have been made on basis of findings and conclusions:

1. Given the identified gap in special training for computer use among most trainee teachers, it is recommended that teacher education programs incorporate modules or workshops focusing on digital literacy. This training should encompass essential skills for effectively utilizing personal computers and other digital tools in educational settings.
2. To enhance digital literacy skills, teacher education institutions should actively explore and provide professional development opportunities. Workshops, seminars, and online courses can be designed to empower trainee teachers with the necessary skills to integrate technology seamlessly into their teaching practices (Karsenti & Fievez, 2013). Institute of Education may develop their e-contents (PowerPoint slides, video lectures, and interactive website) for promoting digital technology usage as well as teaching and learning of English language to trainee teachers for attaining maximum benefit of contemporary digital technological development.
3. Frequent disconnect of internet connection may be overcome by the university management for effective use of online digital resources for language learning by the trainee teachers of the Institute.
4. Digital technology is not only beneficial for the students of education and teachers but also for other department students and other professionals, so, the study may be conducted in various departments of University of Sargodha and University may emphasize a student-centric approach in integrating technology into language education. Encourage trainee teachers to explore innovative ways to engage students through digital tools, fostering a dynamic and interactive learning environment.
5. To ensure the sustained effectiveness of digital literacy initiatives, teacher education programs should implement continuous monitoring and evaluation mechanisms. Regular assessments can gauge the progress of trainee teachers in developing digital skills and adapting to technological advancements in language education (Ertmer et al., 2012; Means et al., 2013).

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