JLTL

The Journal of Language Teaching and Learning™

2024 Volume 14/Issue 1 Article 5

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Recommended Citations:

APA

Harmandaoğlu Baz, E. (2024). Yesterday and Tomorrow in ELT: What has been changing in ICT integration?. *The Journal of Language Teaching and Learning*, 14(1), 85-92.

MLA

Esra Harmandaoğlu Baz. "Yesterday and Tomorrow in ELT: What has been changing in ICT integration?." The Journal of Language Teaching and Learning 14.1(2024): 85-92.

The Journal of Language Teaching and Learning, 2024(*1*), pp. 85-92

Yesterday and Tomorrow in ELT: What has been changing in ICT integration?

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ARTICLE INFO

Article History:
Received 20 April, 2023
Revisions completed 24 December, 2023
Published 31 January, 2024

Key Words:

ICT integration
EFL
SLTE

ABSTRACT

In the era of globalization and remarkable technological progress, English Language Teaching (ELT) has been shifting its focus towards emerging trends. Simply being aware of the fundamental aspects of Information and Communication Technologies (ICT) is no longer sufficient. Teacher educators must look ahead and prioritize teacher education with even greater efficiency than before. This situation will necessitate a transformation in the way teachers and learners approach thinking, learning, and their identities. Additionally, it's vital to keep in mind that unexpected events like the global pandemic, such as Covid-19, can suddenly impact the world. Consequently, we must be prepared for educational shifts to online platforms at all educational levels, as we might not always have the choice to conduct education in traditional ways.

ICT Integration in ELT Programs

Digital natives term by Prensky (2001) has created a distinction between the younger and older generations. This kind of distinction between younger generations-student and older generations-teacher may risk the dynamics in the classroom by assuming that the process, the effort and the knowledge they have in technology would be implemented into learning and teaching (Selwyn, 2009). Similarly, it is

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 ISSN: 2146-1732

assumed that pre-service teachers of this younger generation would be proficient in ICT integration practices (Lei, 2009). However, research suggests that there is a difference between knowing about technology and effectively incorporating it into teaching practices (Chiu et al., 2021; Koehler & Mishra, 2005; Li, 2020; Tezci, 2011; Weisberger et al., 2021; Zhao & Tella, 2002). Despite the widespread use of ICT, previous research shows that pre-service teachers may not be given adequate training in integrating ICT into their future classrooms (Aslan & Zhu, 2017; Banerjee et al., 2017; Chiu et al., 2021; Kovalik et al., 2013; Lei, 2009). Various studies have also indicated that many learners, who are predominantly digital natives, possess limited ICT skills (Bennett et al., 2008; Kennedy et al., 2008; Kvavik et al., 2004; Maclean & Elwood, 2009; Kvavik, 2005).

ICT integration into the classes has not matched the rapid adoption of ICT itself. Teachers appear to struggle with recognizing the significance of computers in the educational process and often harbor concerns about the potential impact on their job (Pine-Thomas, 2017). The role of pre-service teacher education is pivotal in preparing future teachers for the efficient integration of ICT into their forthcoming classrooms (Akçaoğlu, 2008; Başal, 2015; Chiu et al., 2021; Kessler, 2006; Sadaf et al., 2012) to address this issue. Pre-service teacher education programs should provide student teachers with a variety of opportunities to actively engage in ICT practices. Additionally, as emphasized by Russell et al. (2003), these programs can play a significant role in shaping teacher opinions offering a variety of technologies and instructional strategies. It is of high importance in pre-service teacher education to place a strong emphasis on ICT training to ensure that prospective teachers can efficaciously take into consideration the evolving needs of the students (Göktaş et al., 2008). Three fundamental principles for ICT training within teacher education are outlined by Thompson, Bull, and Willis (2002): Infuse technology throughout the entire teacher education program, introduce technology in meaningful instructional contexts and provide students with opportunities to know and observe ICT-based learning environments during the teacher education program. As mentioned previously, it's evident that offering isolated technology courses isn't effective in developing ICT integration skills of student teachers. Instead, continuous and preferably integrated training within the comprehensive teacher preparation programs is essential according to Halttunen's (2002), Kessler's (2006), and Northrup and Little's (1996) suggestions. In line with this, Egbert (2006) emphasizes that teacher education programs should not only provide academic knowledge about computer use but also help teachers apply this knowledge across various instructional contexts. Trainers, responsible for fostering Computer-Assisted Language Learning (CALL) knowledge and skills, should actively support student teachers in adapting to ICT integration practices (Hubbard & Levy, 2006; Li, 2020). Therefore, it is crucial for teacher educators to proficiently implement ICT practices in their classrooms to serve as role models for student teachers as highlighted by Enochson and Rizza (2009), Funkhouser (2011), Graziano et al. (2017), and Hammond et al. (2009).

ICT integration into second language teacher education is profoundly important. "Education in this area (*referring to technology*) is somewhat different from that in other areas as it involves both a pedagogic as well as a practical component in the sense that teachers need to have the technical skills to use the technology before they can discover how to implement it…The teacher educator is thus in the delicate position of explicitly linking the benefits of the innovation to classroom practice" (Reinders, 2009, p. 230). It should be given a thorough analysis to understand two areas that are essential for effective CALL implementation: technical and pedagogical CALL knowledge and skills (Hubbard and Levy, 2006). The preceding information highlights the importance of being knowledgeable and competent in both the technical and pedagogical aspects of CALL. Furthermore, ICT implementation is recognized as a critical supporter to the dynamic meaning-construction process in students' learning. ICT should go beyond the mere use of computers and aim for effective and meaningful usage, fostering collaboration, creativity, communication, and critical thinking skills as indicated by Lapp (2000), Li (2020), Nelson et al. (2009), and Sturm et al. (2009). The role of technology in our lives especially in the language classroom grows more

and more (Reinders, 2009). The increasing presence of technology has led to the development of pedagogical approaches that leverage technology (Chapelle, 2005) and in light of the aforementioned points, technology is reshaping the roles of language teachers by influencing language itself, forming new chances for learning a language, and widening language teaching possibilities (Chapelle, 2005; Sharples et al., 2016; Vongkulluksn et al., 2018; Weisberger et al., 2021). Hence, according to Doering et al. (2003), Saito (2012), and Schmid (2009), there's an increasing request for an accurate method of reasoning for ICT integration into instruction and it could end up resulting in shaping classes which give students opportunities for practice and active involvement. The accomplishment in novel technologies is contingent on the teacher's capability to apply them in a meaningful way, particularly in language classrooms, where technology supports both content delivery and skill-building (Reinders, 2009).

Teacher cognition is "inquiry which seeks, with reference to their personal, professional, social, cultural and historical contexts, to understand teachers' minds and emotions and the role these play in the process of becoming, being and developing as a teacher" (Borg, 2019, p. 20). Therefore, analyzing teachers' previous schemata and beliefs should be reinforced during teacher education. It is assumed that teachers have differing "pedagogical goals at different stages of a lesson: they might use technology to facilitate interaction with students, establish a context for learning activities, mediate learning or increase student engagement" (Li, 2020, p. 175). Similarly, according to Brickner (1995), an individual's belief system is shaped by their early experiences during childhood and comprises a range of beliefs concerning both the physical and social aspects of reality. Therefore, when we expect teachers to incorporate ICT into their classrooms, it necessitates adjustments in what they believe concerning the roles of both teachers and learners, learning, and teaching. These adjustments are notably evident in how teachers define knowledge and learning within the context of technology (Brickner, 1995, p. 41). Especially pedagogical beliefs play a pivotal role in both ICT integration and usage of suitable technological tools to promote learning (Li, 2020) because beliefs towards technology align with the similar perceptions as teaching beliefs (Brickner, 1995). When innovations become available to educators, they frequently question whether or not to accept them. Teachers need to keep in mind such benefits and roles of ICT integration as a language resource, a cognitive tool, a mediational tool, a learning environment for interaction, a tutor for individualized feedback, and an affective tool (Li, 2020). Research indicates that the more training teachers receive in using technology, the more likely they are to incorporate computers into their teaching. Furthermore, the more teachers utilize technological devices, the less apprehensive they feel (Becker, 1991). Ultimately, it is the teacher who ultimately makes the decision about whether to employ ICT in their teaching and the teachers have varying notions related to the functions and roles of technology (Li, 2020).

What has been changing?

In the process of integrating ICT into language learning and teaching, several key considerations must be taken seriously:

- Teachers who have been used to teaching face to face are to delve into novel approaches and methods in teaching in their process to construct a new teacher identity and reinforce students' 21st century skills (Chiu et al., 2021; Çepni & Şahin, 2012; Fu & Zhou, 2020; Gao & Zhang, 2020; Hadad et al., 2020; Holmberg, 2019; Hwang, 2021; Shamir-Inbal & Blau, 2021; Valanides, 2018; Weisberger et al., 2021; Zhang & Zhang & Hwang, 2023). Integrating ICT might alter the roles of the teachers (Li, 2020; Weisberger et al., 2021) and as mentioned earlier, it's the teacher who ultimately decides whether to incorporate ICT into the educational process. Therefore, the teacher plays a crucial role in determining the integration of ICT into education and changing teachers' perspectives stands as a really crucial factor for accomplishing ICT integration (Li, 2020; Sharples et al., 2016; Vongkulluksn et al., 2018; Weisberger et al., 2021).

- Adaptation to the unfamiliar and sudden environments like COVID 19 is of high importance because emergency remote teaching as a new online learning concept has become part of education since 2020 throughout all the world (Chiu et al., 2021; Ekoç-Özçelik, 2022; Erdem-Aydın, 2021; Shamir-Inbal & Blau, 2021; Weisberger et al., 2021).
- Teacher education programs should pertain sufficient and efficient theoretical and practical knowledge to the pre-service teachers for ICT integration process so that they can accomplish a preferably little gap between theory and practice not only in online teaching but also in emergency remote teaching (Chiu et al., 2021; Kessler, 2018; Park & Son, 2020).
- Quite a lot of teachers still feel disappointed at ICT integration in this outstanding technological era due to immense amount of workload (Mümtaz, 2000; Lawrence & Tar, 2018; Rosenberg & Asterhan, 2018; Weisberger et al., 2021; Wright & Wilson, 2011), infrastructure problems. This kind of an issue needs to be addressed comprehensively and promptly in order to ensure successful integration of ICT.
- Language learning and teaching have received their share from Artificial Intelligence (AI) trend (Ali et al., 2023; Aljanabi et al., 2023; Aydın & Karaarslan, 2022; Buriak et al., 2023; Chen et al., 2021; Göçen & Aydemir, 2020; Han et al., 2023; Huang et al., 2021; Jain & Jain, 2019; Ji et al., 2023; Kasneci et al., 2023; Liang et al., 2021; Singer et al., 2023; Zhai, 2022). AI has the potential to enhance the teaching and learning of languages by offering tailored, interactive, and real-life language learning environments through various platforms like web-based systems, virtual reality systems, or chatbots, as suggested by studies conducted by Chen et al. in 2020, Lin and Chang in 2020, Oliva et al. 2021, Tang et al. in 2021, Wijekumar et al. in 2013, Zawacki-Richter et al. in 2019 and Zhai et al. in 2020.

Conclusion

The integration of ICT into education has gained increasing popularity and necessity, especially in this tech-savvy era. Significant changes have occurred in language teaching perspectives encompassing not only teachers but also learners. As a result, it is crucial for teachers, learners, policymakers, and stakeholders to be mindful of these evolving trends in language teaching and learning. These include:
* incorporating teacher education programs into ICT integration practices,
* addressing identity transformations in both teachers and learners,
* considering the influence of natural outbreaks and AI.

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