

Editorial Views to Promoting Digitalized Research in Education and Language Teaching

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Abstract

This study focused on the promotion of research on digital transformation in education and language teaching. It purposely tended to promote the teachers, scholars, students, and researchers construct the research studies on technology transforming in digital education and language teaching, such as blended learning, distance/online learning, and/or e-learning. With the challenges of AI in education, the studies on digital education transformation (DET) and digital language teaching (DLT) are under explored, improving the digital competence, literacy, and skills for teachers and students. By examining the digital technology transformation (DTT) in education curricula, this study really promoted teachers, scholars, students, and researchers to do research on these challenges, with different research method designs, such as analytical research design, descriptive research design, exploratory research design, explanatory research design, and beyond. This study further suggested teachers, scholars, students, and researchers create future-research studies on the key factors of AI challenges in education programs, such as barriers of critical thinking development, problem-solving, and decision making. The future-research studies on DTT in education and language teaching significantly contributed to the betterment of digital competence, skills, and literacy – reforming the educational quality and outcomes.

Keywords: *digitalized research, digitalization transformation, educational quality, digital skill, digital literacy, e-learning, blended learning*

1. Overviews

Digital research in education (DRE) is the optimal for developing to education quality and outcomes, with the contexts of digital education. Besides, the digital language teaching shares the impacts of DRE on accessing language teaching with the digital competence, skill, and literacy (Giannoutsou et al., 2024). Promoting to understanding of digital research is needed to motivate and engage teachers, students, and scholars be involved with DELT frameworks (OECD, 2023). However, digital critical challenge in education and language teaching is limitedly researched in the era of DTT (UNICEF,

2021) and the global shift that leaves a gap of digital technology research (James et al., 2021). Higher education-institutions (HEIs) might promote teachers or students to enable digital research in education and language teaching. The impact of digital technologies in education curricula (EC) plays a role in utilizing the digital platforms in education reform and language teaching betterment. DRE is essential for HEIs to reform the educational curricula – engaging to improve research competence and digitalizing the educational research (Balyer & Öz, 2018; Hang-chuon, 2021).

2. Digital Research in Education (DRE)

With the digital context in the 21st century education, DRE is prioritized and essential for educators or scholars to empower the use of digital technology in developing the teaching and learning process (MoEYS, 2019). In Cambodia, the demands of Internet-digital devices significantly increased in the digital research and digital-research competency in digital technology engagement (Ministry of Post and Telecommunications [MPT], 2023). The index of school responsibility for carrying out DRE is low in digital education. DRE affects academic performance and educational outcomes (Nizariah, 2021). DRE limited competence is a critical gap in digitalizing research knowledge and skills to contribute to the digital education era, handling Internet-research access, developing the digital global education (DASH et al., 2021), and ensuring digital educational contents at all settings (Bates, 2015; UNESCO, 2023). Integrating the digital research in education transforms the digital education system with internet-research platform (Forrester, 2016; OECD, 2017). DRE contributes to qualifying the education outcomes, enhancing online learning, and integrating the digital research in teaching and learning (Dirk et al., 2021; Paulo, 2020).

3. Digital Research in Language Teaching (DRLT)

DRLT involved comprehension of integrating digital technologies into the process of teaching and learning, with internet digital-research platforms (Benavides et al., 2020; Alenezi, 2023). Typically, DRLT benefits teaching and learning digital experience and environments –developing critical thinking and improving learning outcomes (Abad-Segura et al., 2020). This also contributes to sustainable practices, innovation, and education changes (Shenkoya & Kim, 2023). With the strategic planning in developing the education frameworks, DRLT can build teaching competition and literacy (Bisri et al., 2023; Mohamed Hashim et al., 2022; Rof et al., 2020; Valdés et al., 2021). DRLT is challenged with the strategic and cultural barriers (Akhmetshin et al., 2020; Akour & Alenezi, 2022; Bucăța et al., 2022; Díaz-

Garcia et al., 2023; Gkrimpizi et al., 2023; Gkrimpizi & Peristeras, 2022; Rima Aditya et al., 2021). DRLT influences digital technological readiness, digital competencies, and digital research skills (Elçiçek & Erdemci, 2021; Larionov et al., 2021; Latifah et al., 2022; Litiņa & Miltuze, 2023; Niță & Guțu, 2023; Valverde-Berrocso et al., 2022; Wekerle et al., 2022). DRLT gives teachers chance to implement digital thinking and use the frameworks of the digital initiatives (Alenezi, 2021; Silva, 2017; Yureva et al., 2020).

4. Future-Research Frameworks (FRF) on AI Challenges

FRF lies in a sense of responsibility with the future research in AI challenges, reflecting the digital research landscape and influencing the educational outcomes (Culminas-colis & Reyes, 2024; Kim & Choi, 2018). AI challenge is a critical gap for multiple research frameworks with the integration of understanding of Digital technology challenges in education, such as critical thinking decrease and unreliable solution of problem -solving (James et al., 2021). FRF on AI emphasizes the change of enhancing the research skills and practices with literacy of digital FRF (Ribble & Bailey, 2007; Ribble & Park, 2019). Digital Intelligence (DI) collaborates with the future-research framework – being a set of the comprehensive technical competency and challenges of digital life (DQ Institute, 2019). The FRF aims at encompassing the ability to use the digital technologies in navigating the critical thinking and problem-solving skills and embracing the teaching and learning practices (Jones & Mitchell, 2016; Vuorikari et al., 2022; Yureva et al., 2020).

5. AI Challenge as Barrier for Students in Digital Education

AI is challenged for bettering critical thinking in the digital education settings (Öztürk, 2021). AI in education is challenge of improving the educational outcomes and bettering students' critical thinking (MoEYS, 2024). Further, AI in education shifts toward barrier of competency-based education, critical thinking, and problem-solving (MoEYS, 2016). With journey toward digital education, critical thinking will be challenged in integrating AI into education system (Flores & Mean, 2024; Keo et al., 2024a; Pang et al., 2022;). By implementing AI in education system, it is an urgent focus to setting the policies of using AI in endorsing the digital education policy in Cambodia – acknowledging the digital technology-enhanced learning ecosystem. This highlighted the AI challenges in education, as a barrier of critical thinking betterment and problem-solving. AI policy in education sets out to integrate education system with AI utilization for learning achievement and outcomes (Dirk et al., 2021; Hang-Chuon, 2021). Hence, AI in education is challenged for developing the competencies, skills, and literacy.

6. Digital Frameworks in Education Research (DFER)

Digital framework plays a role in creating new digital platform. DFER neglects the technical abilities increasingly support the success in reforming higher education systems, quality, and outcomes (Khan et al., 2024). As Cambodian education research with the digital frameworks, the academic performance is to enhance educational outcomes. Digital intelligence (DI) navigates the digital technologies into education-research framework [ERF]. As the studies by Koehler et al. (2013), integrating technological knowledge into education fosters creativity in global digital-innovation ecosystems (Morel & Spector, 2022). DFER creates notable gaps to education institutions and shapes the technology transformation into teaching (MoEYS, 2024). Promoting ICT or AI in education prioritizes digital infrastructure and research literacy (UNESCO Institute for Statistics, 2018). Many students lack the digital engagement to foster the high-research competencies (In-Seong et al., 2022; Sok & Heng, 2024). In contrast, the cultural-research perspectives prioritize individuals to foster the digital-research creativity (Gong et al., 2023), research-critical-thinking, digital-research navigation (MoEYS, 2016), digital infrastructure, and digital teacher training (Yılmaz Özden, 2023). Thus, digital competencies access the Internet-powered devices to integrate DFER in practicing and digital-research skills (NV, 2017; Paulo, 2020; Timotheou et al., 2023).

5. Conclusion

This study highlighted the promotion of digital framework in education and language teaching in engaging teachers, students, scholars, or researchers to do research with digital devices. Critical digital-research competencies increased the evolving digital challenges. This study also shed in light with utilizing ICT or AI to integrate and navigate digital frameworks in education. The DFER should be applied int the context of reforming education systems, strategies, and policies. Addressing this key insight can ensure that DRE leveraged substantial digital-research-competency and extend educational settings to integrating digital research in education and language teaching (DRELT) and understanding the digital-research practices and AI challenges in education-research frameworks.

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