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The Role of Digital Pedagogy in Enhancing Teacher Education

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Abstract

This study explores the integral role of digital pedagogy in elevating teacher education, focusing on its impact on teaching methods, instructional approaches, and the development of essential skills. Through a descriptive survey research design conducted in Anambra State, Nigeria, the study engaged 200 teachers from public secondary schools. Findings revealed that the integration of digital pedagogy, particularly through digital storytelling tools, fosters compelling narratives and strengthens connections between educators and subjects. Additionally, the study emphasizes the importance of institutional support and robust digital infrastructure in seamlessly incorporating digital pedagogy into teacher education. The results underscore the transformative potential of digital tools in shaping a dynamic and effective teacher training paradigm for the evolving educational landscape.

Keywords: Role; Digital; Pedagogy; Teacher; Education

Abbreviations: ICT: Information and Communication Technology; MOOCs: Massive Open Online Courses

Introduction

Today, teaching is intricately linked with the concept of design, encompassing the planning of course content, teaching methods, and modes of delivery. While previously associated primarily with higher and distance education, design in teaching has become an integral part of the entire education system [1]. This study specifically delves into the realm of digital pedagogy and its impact on sustainable learning, relying on secondary data for analysis. The educational landscape has witnessed a transformative shift with the overwhelming integration of Information and Communication Technology (ICT) in teaching methodologies (Almerich et al., 2023). The continuous support of the internet and the utilization of network-linked devices have revolutionized education, making digital pedagogy an essential aspect across various educational stages. Contemporary modalities for virtual training, such as Massive Open Online Courses (MOOCs) platforms, utilize ICT to provide electronic materials, e-books, videos, and e-transcripts, facilitating flexible and adaptable learning [2,3]. These methods have proven advantageous due to their adaptability and remote utilization, enabling ubiquitous learning without restrictions on place and time. However, a limitation lies in the potential lack of interaction in courses, possibly impacting learner motivation.

Pedagogy, as a teaching method, encompasses teaching styles, theories, assessment, and feedback. It is adopted by educators and shaped by various factors, including the social system, content of information, and the learning environment. The pedagogy of teaching is expressed through the educator's delivery style, training preferences, experience, and contextual choices when planning a lesson [4]. Online learning platforms have emerged as effective tools for both in-class and remote learning. As expressed by Wu et al. [5], virtual learning tools can enhance academic performance, foster collaborative learning through peer participation, and hold teachers accountable for their students' learning. Additionally, utilizing social media in online learning can improve interactivity among students and researchers with supervisors, contributing to enhanced academic performance. Digital pedagogical skills, coupled with ICT tools, have been identified as a solution to enhance learning experiences. Njoku [6] highlights that these skills allow students to communicate, edit, annotate, arrange, and generate texts quickly and freely. The study conducted by Zamora-Antuñano et al. [7] reveals that a significant percentage of higher education institutions allow the use of virtual learning platforms. Notably, 80% of teachers have received training for using platforms like Moodle, Google Classroom, and

Blackboard. Google Classroom is recognized as a valuable tool for promoting blended learning and professional development [8].

Voogt et al. [9] stress that teachers' attitudes toward technology and its integration into classroom practice are critical factors for successful ICT implementation. Recognizing this, Froehlich [3] emphasizes the importance of training teachers to use ICT effectively, providing them with the necessary knowledge, attitudes, and skills to overcome potential barriers in schools. The effectiveness of digital pedagogical tools in modern education is a multifaceted topic that encompasses various aspects of teaching and learning. These tools have revolutionized the educational landscape, offering new opportunities for personalized, flexible, and interactive learning experiences. The integration of technology in education is not just about providing access to digital resources; it's about reshaping the educational environment to make it more responsive to the diverse needs and learning styles of students.

One of the key benefits of digital tools is the principle of personalization. This allows educators to tailor the learning experience to individual student needs, preferences, and learning paces, fostering a more inclusive and effective educational environment. The principle of flexibility and adaptability goes hand in hand with personalization, emphasizing the need for a learning process that accommodates diverse learning methods, paces, and student backgrounds. The shift in the learning process's dominance is another significant aspect of digital pedagogy [10]. This shift redefines the roles of teachers and students, placing greater emphasis on the learner's active participation and the teacher's role as a facilitator. This approach encourages independent learning, critical thinking, and self-motivation. Furthermore, cooperative, and collaborative learning is greatly enhanced by digital tools. These tools enable more dynamic interaction between teachers and students and among students themselves, fostering a more engaged and participatory learning environment [11].

However, the effectiveness of these tools is heavily dependent on the digital competence of teachers. Educators need to be proficient not only in the use of these tools but also in integrating them methodologically into their teaching practices. This requires ongoing professional development and support. In teacher education, various approaches to integrating ICT in teaching have been identified, each with its unique focus and benefits. These range from developing basic ICT skills to using ICT as a tool for enhancing subject-specific teaching. Moreover, digital pedagogy plays a crucial role in skill development, preparing students for a technology-driven world. Digital literacy is becoming increasingly important, not just for academic success but also for employability and societal participation [12]. However, the successful implementation of digital pedagogy requires institutional support and infrastructure. Institutions need to provide the necessary resources, training, and support systems to ensure that educators can effectively teach in online environments. This includes not only technological support but also pedagogical, administrative, and policy guidance. Therefore, digital pedagogical tools have the potential to greatly enhance the teaching and learning process. However, their effectiveness is contingent upon several factors, including the digital competence of educators, the adaptability of teaching methods, institutional support, and the integration of these tools into the curriculum in a way that enhances the overall educational experience. As technology continues to evolve, so must our approaches to teaching and learning to fully harness the potential of these innovative tools.

Research questions

- Research question one: How do various digital pedagogical tools contribute to enhancing teacher education?
- Research question two: In what ways does the integration of digital pedagogy influence the evolution of teaching methods and instructional approaches in teacher education?
- Research question three: How does the incorporation of digital pedagogy contribute to the development of essential skills among teacher education candidates?
- Research question four: To what extent does institutional support and the availability of appropriate digital infrastructure influence the successful implementation of digital pedagogy in teacher education?

Hypotheses

- Hypothesis one: There is no significant correlation between integration of digital pedagogy, the evolution of teaching methods and instructional approaches in teacher education.
- Hypothesis two: There is no significant correlation between incorporation of digital pedagogy and the development of essential skills among teacher education candidates.

Methodology

Based on the specific objective of the study, the research design employed is a descriptive survey research design. Survey research entails the study of a group of respondents through the collection and analysis of data derived from items deemed representative of the entire group source. The study is conducted in Anambra State, Nigeria, focusing on teachers in public secondary schools. A total of 200 teachers participated in the study. The instrument utilized for data collection was a self-structured questionnaire comprising two sections. Section A encompassed demographic data, while Section B included questionnaire items aligned with research questions and corresponding responses. The adopted format was a four-point scale: Strongly Agree (SA = 4 points), Agree (A = 3 points), Disagree (D = 2 points), and Strongly Disagree (SD = 1 point). The overarching theme of the questionnaire centered on the role of digital pedagogy in enhancing teacher education. To ensure the validity of the instrument, the questionnaire was submitted to three lecturers in the Measurement and Evaluation department at Nwafor Orizu College of Education, Nsugbe. These experts scrutinized the instrument, providing feedback based on

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their observations. The researchers used this input to refine the questionnaire items before the final draft.

Instrument reliability was verified by involving twenty (20) respondents who did not partake in the main study. Questionnaires were distributed to them, collected promptly, and then redistributed to the same teachers after two weeks. This process, employing the test-retest reliability method, allowed for reshuffling and rearranging of questionnaire items. The collected data were subjected to correlation analysis using the Pearson Product Moment Correlation, resulting in a reliability index of 0.98. The researcher and other assistants disseminated Google Form links containing the questionnaire to the respondents, with a total of 200 participants in the study. The survey spanned three weeks for completion. For data analysis, researchers employed the weighted mean score and standard deviation to address the research question. The acceptance point for items was set at a mean score of 2.5, which is the sum of Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1) divided by 4 (10/4 = 2.5). Consequently, a mean score of 2.5 and above was considered accepted, while scores below 2.49 were deemed rejected. In hypothesis testing through correlation analysis, the study utilized appropriate statistical techniques, specifically Pearson's correlation coefficient. This method assessed the strength and direction of relationships between perceived problems in teaching sexuality education and variables such as gender, religion, level of education, and age. The correlation analysis aimed to reveal the extent and nature of these relationships.

Results

Research question one: How do various digital pedagogical tools contribute to enhancing teacher education?

Table1, the entire disclosure's mean showed a moderate level. Digital pedagogical tools offer interactive simulations, fostering hands-on learning experiences that enrich teacher education programs with practical applications. (M = 2.05, SD = 1.09). Virtual classrooms and online forums enable collaborative learning, facilitating communication and knowledge exchange among educators worldwide, transcending geographical limitations (M = 2.95, SD = 1.23), online assessment platforms enhance evaluative processes, enabling educators to gauge their understanding and proficiency in various teaching methodologies and content areas (M = 3.58, SD = 0.89). However, artificial intelligence tools analyze teaching patterns, providing valuable insights that inform the development of adaptive teacher education programs tailored to individual learning styles (M = 1.90, SD = 1.17). The mean level of statements was in between 1.90 to 3.60. On the whole items 1, 2, 3, 4 and 5 have a mean score above 2.50 and were accepted with standard deviation of 1.09, 1.23, 1.00, 0.89 and 1.09 were accepted respectively. While item 6 having mean scores below 2.50 was rejected.

Table 1: Digital pedagogical tools contribution in enhancing teacher education.

No		SA	A	D	SD	Mean	Std Dev	Decision
1	Digital pedagogical tools offer interactive simulations, fostering hands-on learning experiences that enrich teacher education programs with practical applications.	35	20	65	80	2.05	1.09	Accepted
2	Virtual classrooms and online forums enable collaborative learning, facilitating communication and knowledge exchange among educators worldwide, transcending geographical limitations.	105	15	45	35	2.95	1.23	Accepted
3	Data analytics tools help track individual progress, allowing personalized feedback and tailored interventions to address specific challenges faced by aspiring teachers.	125	25	35	15	3.3	1	Accepted
4	Online assessment platforms enhance evaluative processes, enabling educators to gauge their understanding and proficiency in various teaching methodologies and content areas.	155	20	10	15	3.58	0.89	Accepted
5	Social media platforms facilitate networking opportunities, connecting educators globally to share best practices, resources, and innovative teaching techniques.	110	30	35	25	3.13	1.09	Accepted
6	Artificial intelligence tools analyze teaching patterns, providing valuable insights that inform the development of adaptive teacher education programs tailored to individual learning styles.	35	25	25	115	1.9	1.17	Rejected

Research question two: In what ways does the integration of digital pedagogy influence the evolution of teaching methods and instructional approaches in teacher education?

Table 2, shows that digital tools enrich teaching by fostering interactive lessons, enhancing student engagement, and understanding through multimedia (M = 2.90, SD = 1.16). Integrating technology diversifies instructional methods, accommodating varied learning styles and promoting inclusive education practices. (M = 3.20, SD = 1.12). Meanwhile, Real-time feedback from digital assessments supports instant evaluation,

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guiding teachers in adjusting strategies for improvement (M = 2.43, SD = 1.07). However, digital storytelling tools facilitate the creation of compelling narratives, establishing deeper connections between students and subjects (M = 3.26, SD = 0.95). On the whole items 7, 8, 10 and 11 have a mean score above 2.50 and were accepted with standard deviation of 1.16, 1.12, 0.95 and 1.23 were accepted respectively. While item 9 having mean scores below 2.50 were rejected.

Table 2: How the integration of digital pedagogy influences the evolution of teaching methods and instructional approaches in teacher education.

No		SA	A	D	SD	Mean	Std Dev	Decision
7	Digital tools enrich teaching by fostering interactive lessons, enhancing student engagement, and understanding through multimedia.	90	35	40	35	2.9	1.16	Accepted
8	Integrating technology diversifies instructional methods, accommodating varied learning styles and promoting inclusive education practices.	120	30	20	30	3.2	1.12	Accepted
9	Real-time feedback from digital assessments supports instant evaluation, guiding teachers in adjusting strategies for improvement.	45	40	70	45	2.43	1.07	Rejected
10	Virtual simulations create risk-free environments for teachers to experiment with innovative pedagogical techniques and strategies.	110	30	15	45	3.03	1.23	Accepted
11	Digital storytelling tools facilitate the creation of compelling narratives, establishing deeper connections between students and subjects.	115	31	45	9	3.26	0.95	Accepted

Research question three: How does the incorporation of digital pedagogy contribute to the development of essential skills among teacher education candidates?

Table3, revealed that exposure to diverse online resources cultivates research skills, empowering candidates to explore and integrate varied perspectives (M = 2.83, SD = 1.20). Digital assessments foster self-assessment skills, enabling candidates to reflect on their teaching practices and progress. (M = 3.00, SD = 1.16). On the whole items 12, 13, 14, 15, 16 and 17 have a mean score above 2.50 and were accepted respectively.

Table 3: How incorporation of digital pedagogy contributes to the development of essential skills among teacher education candidates.

No		SA	A	D	SD	Mean	Std Dev	Decision
12	Collaborative online platforms enhance communication skills, fostering interaction and teamwork among teacher candidates.	90	25	45	40	2.83	1.2	Accepted
13	Interactive simulations build problem-solving skills, allowing candidates to apply theoretical knowledge to practical scenarios.	125	25	35	15	3.3	1	Accepted
14	Exposure to diverse online resources cultivates research skills, empowering candidates to explore and integrate varied perspectives.	135	40	10	15	3.48	0.89	Accepted
15	Digital assessments foster self-assessment skills, enabling candidates to reflect on their teaching practices and progress.	100	35	30	35	3	1.16	Accepted
16	Online collaboration develops interpersonal skills, as candidates engage with peers in virtual learning communities.	90	40	35	35	2.93	1.15	Accepted
17	Multimedia presentations refine communication skills, as candidates learn to convey information effectively using various formats.	80	65	15	40	2.93	1.13	Accepted

Research question four: To what extent does institutional support and the availability of appropriate digital infrastructure influence the successful implementation of digital pedagogy in teacher education?

Table4, shows that robust institutional support ensures a seamless integration of digital pedagogy into teacher education curricula. (M = 2.95, SD = 1.20). Adequate funding allows institutions to invest in the latest technologies, facilitating effective digital teaching methods (M = 3.30, SD = 1.00). However, adequate bandwidth and server capabilities prevent disruptions, enabling seamless online interactions in digital classrooms (M = 1.90, SD = 1.18). On the whole items 18, 19, 20, 22 and 23 have a mean score above 2.50 and were accepted with standard deviation of 1.20, 1.00, 0.89, 1.10 and 0.95 were accepted respectively. While item 21 having mean scores below 2.50 were rejected.

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Table 4: Institutional support and the availability of appropriate digital infrastructure

No		SA	A	D	SD	Mean	Std Dev	DECISION
18	Robust institutional support ensures a seamless integration of digital pedagogy into teacher education curricula.	105	15	45	35	2.95	1.2	Accepted
19	Adequate funding allows institutions to invest in the latest technologies, facilitating effective digital teaching methods.	125	25	35	15	3.3	1	Accepted
20	Intensive training programs enhance educators' digital literacy, ensuring they can effectively utilize digital tools in teaching.	155	20	10	15	3.58	0.89	Accepted
21	Adequate bandwidth and server capabilities prevent disruptions, enabling seamless online interactions in digital classrooms.	35	25	25	115	1.9	1.18	Rejected
22	Institutional commitment to staying current with technological trends facilitates adaptation and innovation in digital pedagogy.	110	30	35	25	3.13	1.1	Accepted
23	Partnerships with tech companies can provide institutions with cutting-edge tools, enhancing the overall digital learning experience.	123	33	32	12	3.34	0.95	Accepted

Hypotheses testing

Hypothesis one: There is no significant correlation between integration of digital pedagogy, the evolution of teaching methods and instructional approaches in teacher education. (Table 5)

Table 5: Pearson Correlation between integration of digital pedagogy, the evolution of teaching methods and instructional approaches

		Integration of digital pedagogy	Evolution of teaching methods	Instructional approaches
Integration of digital pedagogy	Pearson Correlation	1	0.577	-0.702
	Sig. (2-tailed)		0.308	0.186
Evolution of teaching methods	Pearson Correlation	0.577	1	-.929*
	Sig. (2-tailed)	0.308		0.022
instructional approaches	Pearson Correlation	-0.702	-.929*	1
	Sig. (2-tailed)	0.186	0.022	

*. Correlation is significant at the 0.05 level (2-tailed).

The Pearson Correlation table indicates a moderate positive correlation (r = .577) between the integration of digital pedagogy and the evolution of teaching methods, but this is not statistically significant (p = .308). A strong negative correlation (r = -.702) exists between the integration of digital pedagogy and instructional approaches; however, this correlation is also not statistically significant (p = .186). Most notably, there's a very strong negative correlation (r = -.929) between the evolution of teaching methods and instructional approaches, which is statistically significant (p = .022). Based on this, the hypothesis that there is a significant relationship between the evolution of teaching methods and instructional approaches is accepted. Conversely, the hypotheses concerning the other correlations (integration of digital pedagogy with both the evolution of teaching methods and instructional approaches) are rejected due to lack of statistical significance.

Hypothesis two: There is no significant correlation between incorporation of digital pedagogy and the development of essential skills among teacher education candidates. (Table 6)

Table 6: Pearson Correlation between incorporation of digital pedagogy and the development of essential skills

		Integration of digital pedagogy	Development of essential skills
Integration of digital pedagogy	Pearson Correlation	1	0.542
	Sig. (2-tailed)		0.345
Development of essential skills	Pearson Correlation	0.542	1
	Sig. (2-tailed)	0.345	

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The Pearson Correlation table reveals a moderate positive correlation (r = .542) between the integration of digital pedagogy and the development of essential skills, but this correlation is not statistically significant (p = .345). The lack of statistical significance suggests that there is insufficient evidence to conclude a significant relationship between the integration of digital pedagogy and the development of essential skills. Therefore, based on the given data, the hypothesis proposing no significant correlation between these variables is rejected.

Discussion

The aim of this study is to explore how digital pedagogical tools contribute to enhancing teacher education. The findings indicate that online assessment platforms improve evaluation processes, enabling educators to assess their understanding and proficiency in various teaching methodologies and content areas more effectively. Numerous studies [11-13]. suggest that the use of Information and Communication Technology (ICT) is most effective when it challenges learners' understanding and thinking, involving both the teacher and the technology. This effectiveness can be achieved through various methods, such as whole-class discussions initiated by interactive whiteboards or individual or paired tasks on computer systems. The efficacy of these activities hinges on careful planning and the teacher's skill in organizing and facilitating ICT-based activities. Bellei & Munoz [14] highlighted that recent advancements in ICT provide unique learning opportunities, necessitating the design of a new 'integrated pedagogy'. Froehlich [3] identified pedagogical roles for teachers in technology-supported classrooms, which include setting joint tasks, rotating roles, promoting student self-management, supporting metacognition, fostering multiple perspectives, and scaffolding learning. It is assumed that the use of ICT is altering the pedagogical roles of teachers. Furthermore, Kumar [2] argued that a compelling reason for incorporating ICT in schools is its potential to transform the teaching and learning process, acting as a catalyst in this transformation.

Research question 2 investigates the influence of digital pedagogy integration on the evolution of teaching methods and instructional approaches in teacher education. The findings highlight the role of digital storytelling tools in fostering the creation of compelling narratives, establishing profound connections between students and subjects. This aligns with Goeman et al.'s [15] assertion that training in digital technologies should cultivate reflective thinking in teachers, enabling them to acquire skills for future technological evolutions in educational models. It emphasizes the importance of innovative methods, such as collaborative or project-based learning, to address real societal problems. Acknowledging that technology complements effective teaching, the adaptation of digital technologies in contemporary classrooms necessitates teachers adopting new roles and work forms. The process requires reflection, analysis, and teacher training as essential components [10]. Recognizing stories as valuable resources, storytelling emerges as a potent means for teachers to communicate experiences and explore ideas, taking students on journeys of discovery into new realms of lived experience.

Research question 3 explores how the incorporation of digital pedagogy aids in developing essential skills among teacher education candidates. The findings indicate that access to a variety of online resources enhances research skills, empowering candidates to assimilate and apply diverse perspectives. Additionally, digital assessments encourage the development of self-assessment skills, enabling candidates to critically reflect on their teaching methodologies and personal progress. Ali et al. [16] assert that while teachers' technological proficiency is a crucial factor in integrating ICT, it alone does not guarantee effective technology use in classrooms. They advocate for training programs focused more on pedagogical applications of ICT rather than just technical aspects, along with providing effective technical support. This approach facilitates teachers in effectively utilizing technology in teaching and learning contexts. Furthermore, Saubern et al. [17] underscores that quality professional training programs are instrumental in helping teachers integrate technology and transform their teaching practices.

The study delves into the crucial aspects of institutional support and the availability of suitable digital infrastructure. The findings underscore that comprehensive training programs significantly enhance educators' digital literacy, equipping them to adeptly employ digital tools in their teaching practices. Additionally, robust institutional support is pivotal for the seamless integration of digital pedagogy into teacher education curricula. While faculty roles may vary based on institutional structures and academic policies, effective systems and support mechanisms are imperative to ensure successful teaching in student-centered and interaction-focused online environments [18]. Despite potential variations in faculty roles, respondents rejected the notion that adequate bandwidth and server capabilities pose disruptions, affirming the facilitation of smooth online interactions in digital classrooms. Institutional support manifests in diverse forms, encompassing course development assistance, time, and incentives for engagement in online teaching, professional development for honing online teaching skills, aid with academic processes (e.g., plagiarism prevention, fair use of materials), guidance on online education policies, operational assistance, peer support, and student support [19].

Conclusion

In conclusion, this study has provided valuable insights into the pivotal role of digital pedagogy in advancing teacher education. The findings underscore the positive impact of digital tools on various facets of teaching, from the evolution of instructional approaches to the development of essential skills among teacher candidates. Digital storytelling tools were identified as effective in fostering compelling narratives, establishing deeper connections between educators and subjects. Furthermore, the study highlights

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the significance of institutional support and appropriate digital infrastructure in ensuring the successful integration of digital pedagogy into teacher education curricula.

The use of digital tools in education offers numerous benefits, including enhanced learning experiences, access to a wealth of information, improved collaboration, and cost-effectiveness. At present the chief objective of the teacher education is to prepare techno-pedagogues, one who can develop and implement digital pedagogy. Pre-service teachers must be able to integrate technology into teaching and learning. They must understand their role in technologically oriented classrooms and develop skills to make use of Internet technology, exploring it, perform information processing and management to use in teaching learning, etc. The results are also helpful to the teachers and school administrators to know the digital pedagogical skills for instructional practices. Teachers' technology skills are a strong determinant of ICT integration, but they are not conditions for effective use of technology in the classroom. However, adequate funding allows institutions to invest in the latest technologies, facilitating effective digital teaching methods.

References

1. Bellei C, Munoz G (2023) Models of regulation, education policies, and changes in the education system: a long-term analysis of the Chilean case. Journal of Educational Change 24(1): 49-76.
2. Kumar S (2024) The Effects of Information and Communication Technology (ICT) on Pedagogy and Student Learning Outcome in Higher Education. EAI Endorsed Transactions on Scalable Information Systems 11(2): 1-5.
3. Froehlich DE (2023) Sustainable Service-Learning through Massive Open Online Courses. Sustainability 15(18): 13522.
4. Kurniawan E, Akhyar M, Muryani C, Asrowi A (2024) Enhancing 21st Century Teachers Through Eco-Digital Pedagogy. Pegem Journal of Education and Instruction 14(1): 319-330.
5. Wu WCV, Hsieh JSC, Yang JC (2017) Creating an online learning community in a flipped classroom to enhance efl learners' oral proficiency. Educational Technology and Society 20(2): 142-157.
6. Njoku C (2015) Information and communication technologiesto raise quality of teaching and learning in higher education institutions. International Journal of Education and Development Using ICT 11(1): 122-147.
7. Zamora-Antuñano MA, Rodríguez-Reséndiz J, Cruz-Pérez MA, Reséndíz HR, Paredes-García WJ, et al. (2022) Teachers' perception in selecting virtual learning platforms: A case of mexican higher education during the COVID-19 crisis. Sustainability 14(1): 195.
8. Iftakhar S (2016) Google classroom: What works and how? Journal of Education and Social Sciences 3(1): 12-18.
9. Voogt J, Knezek G, Cox M, Knezek D, Ten Brummelhuis A (2013) Under which conditions does ICT have a positive effect on teaching and learning? A call to action. Journal of Computer Assisted Learning 29(1): 4-14.
10. Athan M, Thacha W (2022) Online Program to Develop Teachers to Enhance Students' Adaptability Skills. Education Quarterly Reviews 5(3).
11. Bayley SH (2022) Learning for adaptation and 21st century skills: Evidence of pupils' flexibility in Rwandan primary schools. International Journal of Educational Development 93: 102642.
12. Gill A, Irwin D, Towey D, Zhang Y (2023) Using digital pedagogy to redefine design education. In Multilingual Education Yearbook 2023: Teaching with Technology in English-Medium Instruction Universities in Multilingual China. Cham: Springer International Publishing Pp:171-190
13. Almerich G, Orellana N, Suárez-Rodríguez J, Díaz-García I (2016) Teachers' information and communication technology competences: A structural approach. Computers & Education 100: 110-125.
14. Bellei C, Munoz G (2023) Models of regulation, education policies, and changes in the education system: a long-term analysis of the Chilean case. Journal of Educational Change 24(1): 49-76.
15. Goeman K, Elen J, Pynoo B, Braak J (2015) Time for action! ICT Integration in Formal Education: Key Findings from a Region-wide Follow-up Monitor. Tech Trends 59 (5): 40-50.
16. Ali Z, Ahmad N, Sewani R (2022) Examining Elementary School Teachers' Professional Proficiencies with Technology Integration and Their Impact on Students' Achievement. Journal of Positive School Psychology 6(7): 2950-2968.
17. Saubern R, Urbach D, Koehler M, Phillips M (2020) Describing increasing proficiency in teachers' knowledge of the effective use of digital technology. Computers & Education 147: 103784.
18. Wojcicki, Esther & Lance Izumi (2015) Moonshots in Education: Launching Blended Learning in the Classroom. San Francisco: Pacific Research Institute.
19. Almpanis T (2015) Staff development and institutional support for Technology Enhanced Learning in UK Universities. The Electronic Journal of e-Learning 13(4): 366-375.

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