

Volume 13, Issue 2 (2024), pp. 102-119 Journal of Interdisciplinary Studies in Education ISSN: 2166-2681Print 2690-0408 Online | https://ojed.org/jise

## Leading New Prospects: English Teachers' Perceptions of Technology-mediated Professional Development

Yadu Prasad Gyawali Meghna Mehndroo Chandigarh University, Punjab, India

### ABSTRACT

The rapid advancement of the school education system in Nepal underscores the importance of technology-driven professional development (PD) for English teachers transitioning to digital teaching methods. This study delves into English teachers' views on technology-based PD to evaluate its effectiveness, challenges, and advantages. Using a qualitative research approach, semi-structured interviews were conducted via Zoom to collect data. The study examines key aspects such as access to digital resources, the impact of technology on teaching approaches, and the enhancement of instructional skills. Key findings emphasize the significance of institutional support, the relevance of PD content, and teachers' prior tech experience in shaping their perceptions of technology-driven PD. These insights provide valuable guidance for policymakers and education stakeholders aiming to improve PD practices for English teachers.

**Keywords:** Community of practice, digital divide, online platform, prior experience, professionalism

### **INTRODUCTION**

Considering the ever-changing landscape of higher education, English language teachers must consistently modify and pioneer their pedagogical approaches. In this evolutionary process, technology-mediated professional development (PD)

has become an indispensable instrument, providing educators with the necessary skills to thrive in the digital environment (Cheah et al., 2019; Cheng et al., 2022). This study explores the lived experiences of English teachers, considering their perspectives on the efficacy, challenges, and potential of technology-facilitated PD programs.

The rationale for this study stems from the acknowledgment of the rapidly evolving scenery of higher education, particularly in the realm of English language instruction. Although there is existing research on the effectiveness of technology in education and professional development, a deeper exploration of how English teachers perceive and engage with technology-enabled PD specifically is needed, considering factors such as accessibility, pedagogical impact, and overall enhancement of teaching proficiency. Furthermore, there seems a lack of comprehensive understanding of the specific challenges and opportunities associated with technology-facilitated PD for English teachers. This includes considerations such as variations in prior technology experience (Ciampa & Gallagher, 2013) among educators, institutional support structures for PD initiatives, and the perceived relevance of PD content to teaching practices.

The importance of technology in influencing the course of PD for English instructors in the field of education is emphasized in this study. This investigation not only reveals the complex terrain of educator viewpoints regarding technologyfacilitated professional development but also offers significant contributions toward influencing future endeavors in English language instruction. By capitalizing on the possibilities presented by technology and integrating it into professional development programs with care, educational institutions can enable English instructors to impart influential lessons in the ever-evolving digital era.

#### LITERATURE REVIEW

#### **Technology-Mediated Professional Development**

In today's swiftly changing world, technological advancements have changed various aspects of our lives, including education. An area where technology has had a significant impact is professional development for teachers. Professional growth plays a crucial role in enhancing teachers' knowledge and skills, allowing them to stay up-to-date with modern teaching practices and educational technologies (Reinsfield, 2016). However, the effectiveness of professional development programs can be influenced by teachers' perceptions and attitudes (Hauerwas et al., 2023; Mifsud, 2023) toward technology. Therefore, it is important to explore English teachers' insights into technology-mediated professional development and its impact on their pedagogy.

Professional development initiatives should aim to mediate teachers' perceptions and knowledge for practice to mature shared understandings of the

purpose of technology education both in the wider community and from a schoolbased perspective. To improve teachers' understanding and perception of technology, professional development initiatives should provide opportunities (Simmie, 2023) for teachers to recover their knowledge of the potential of different technologies to support learning and the most appropriate pedagogical uses of technology (Ekanayake & Wishart, 2015). Moreover, these initiatives should aim to increase teachers' confidence and competence in using technology in their English teaching practices. Positive perceptions of technology may start at low levels, but with familiarity and explicit professional development, teachers' attitudes toward technology can improve over time (Schipper & Yocum, 2016). Integrating technology, content and pedagogy professional development should highlight the integration of technology, content and pedagogy. Teachers should not only acquire technological skills but also understand how to effectively incorporate technology into their English teaching curriculum and pedagogical practices. Furthermore, professional development should focus on helping teachers understand the connection between technology and subject matter (Goh & Kale, 2016). To create effective teacher training programs, it is essential to understand teachers' attitudes towards technology and their prior experiences with digital tools. These factors influence how teachers engage with professional development, especially in technology integration. Teachers with positive attitudes and tech familiarity are more likely to embrace new methods, while those with limited experience may need tailored support to boost their skills and confidence. By acknowledging these differences, professional development can better meet teachers' needs and enhance classroom outcomes. (Potter & Rockinson-Szapkiw, 2012). Training and professional development should be tailored to meet the specific needs and preferences of individual teachers. Considering their attitudes and perceptions toward technology, professional development programs can address any knowledge or confidence that teachers may have. In addition, professional development should aim to improve teachers' self-efficacy, attitudes, and beliefs toward technology (Ekanayake & Wishart, 2015; Potter & Rockinson-Szapkiw, 2012). In general, professional development initiatives should aim to improve teachers' understanding and perceptions of technology by providing opportunities for them to improve their knowledge, confidence, and competence.

#### **Teachers' Perceptions of Technological Advancement**

Ge (2017) reported that technology-mediated professional development may have a significant effect on English teaching practices. This impact can be seen in various ways, such as greater knowledge of technological pedagogical content, improved instructional practices, increased student engagement and learning outcomes, and augmented teacher confidence in integrating technology into their teaching. Challenges in technology-mediated professional development include limited access to technology and internet connectivity, a lack of technical support and training, confrontation from teachers due to fear or discomfort with technology, and difficulty in ensuring the continued implementation and integration of technology into classroom practices (Banihashem et al., 2023; Caneva et al., 2023; Johinke et al., 2023; Mifsud, 2023; Ta'amneh, 2021).

New projections in English teaching through technology can include the use of digital resources and tools for language learning, such as online language learning platforms and interactive whiteboards(Dawadi et al., 2020; Lim et al., 2020). Furthermore, technological advancements can facilitate international connections and collaboration via video conferencing and online language exchange platforms. In English instruction, professional development strategies can be instrumental in fostering technology integration. Potential strategies include the provision of practical training and support to educators, the establishment of continuous professional development opportunities for teachers, the facilitation of a collaborative learning community wherein educators can exchange insights and optimal methodologies, and the integration of technological advancements into teacher education programs (Chang, 2023; Simmie, 2023). Teachers' prior experiences and familiarity with technology, their perceptions of the value and relevance of technology in teaching, their level of comfort and confidence in using technology, and the support and resources at their disposal for integrating technology into their teaching practices all influence their attitudes toward technology in professional development (Dysart & Weckerle, 2015; Mohamad Hasim et al., 2022; Reding et al., 2022).

With technological improvements continually reshaping the educational environment, English language teachers face confidence in adapting and innovating their teaching methodologies to remain effective in their roles (Andreasen et al., 2022). Technology-mediated PD has emerged as a critical path for equipping educators with the necessary skills and competencies to navigate the digital environment and deliver high-quality instruction. Despite the growing prevalence of technology-facilitated PD programs, there remains a gap in understanding the lived experiences and perspectives of English teachers regarding the efficacy, challenges, and potential benefits of such initiatives

#### **RESEARCH METHOD**

Qualitative research is characterized by the systematic collection, examination, and interpretation of comprehensive narrative and visual data to acquire knowledge regarding particular phenomena of significance (Cohen et al., 2013; Denzin & Lincoln, 2011; Leavy, 2017). The present study employed a qualitative case study approach to investigate and assess the perspectives of English teachers concerning PD facilitated by technology.

#### Sample and Data Collection

A method of purposive sampling was utilized to select participants who could offer pertinent information about research inquiries. Six English teachers teaching at the secondary level (Grades 9--12) were the participants in the study. After the teachers were finalized, they were asked for their informed consent for an interview, and the interview was conducted. The detailed demographic information of the participants is provided below in Table 1.

Name	Gender	Qualification	Name of School
(pseudonym)			
Babita	F	M.Ed. (ENG.)	Namuna School
Bhumika	F	M.Ed. (ENG.)	Nepal School
Keshav	Μ	M.Ed. (ENG.)	Karnali School
Raj	М	MA.B.Ed (ENG.)	Rato School
Kamana	F	M.Ed. (ENG.)	Valak School
Chitra	М	M.Ed. (ENG.)	Amar School
Kamal	Μ	M.Ed (Eng)	Children School

Table 1: Demographic information of the participants.

#### **Data analysis**

The qualitative data analysis procedure outlined by Creswell and Creswell (2018) (Creswell & Creswell, 2018) consisted of the following steps: First, the field notes were subjected to critical examination, and the interviews were transcribed with great attention to detail to organize the data efficiently. Following this, the objective of the exploration and coding (Braun & Clarke, 2012; Kekeya, 2016) phase was to reveal latent themes present in the dataset. In the third stage, the themes were subsequently identified, and their fundamental nature was clarified through the analysis of pivotal phrases extracted from the transcriptions. During step four, the results were subsequently presented and discussed according to theme categorization and axial coding, which revealed interconnected themes. The significance of the findings was interpreted in the fifth stage through the provision of detailed descriptions of the identified themes. In the end, a thorough examination was conducted to verify the precision of the results by interpreting them, deriving conclusions, and ensuring that they were consistent with the research objectives

#### RESULTS

This section explores the diverse experiences and perspectives of six English teachers in higher education regarding technology-mediated PD. Their responses

highlight a variety of points of view, ranging from genuine enthusiasm to careful doubt, offering a thorough examination of the current state of technology utilization in professional development.

# Leading New Dimensions through Technology Integration in Professional Development

This section delves into the effectiveness of technology in professional development, particularly in the context of a transitional phase in education, where teachers are increasingly inclined to adapt classroom pedagogy to incorporate technological tools. The current landscape reflects a change in teachers' behaviors, largely influenced by experiences during and after the COVID-19 pandemic, which underscores the importance of leveraging technology for professional growth. The study aims to explore the use of technology as both an opportunity and a catalyst for professional development, drawing insights from the diverse perspectives of the teachers interviewed.

The participants identified numerous opportunities associated with the integration of technology into professional development. These opportunities encompassed the ability to reach a wider audience, enhance the quality of teaching and learning, and foster collaboration between students and educators. The COVID-19 pandemic has acted as a catalyst, accelerating the adoption of ICT tools such as video conferencing, online forums, and social media platforms and making education more accessible and inclusive. Furthermore, the pragmatic use of fundamental technologies such as multimedia projectors, PowerPoints, YouTube videos, and communication platforms such as Messenger and email groups emerged as effective strategies to increase student engagement and participation.

For example,

As an English teacher, I have fully embraced the use of ICT tools to enhance teaching and learning experiences. By actively engaging in virtual conferences and workshops, I have come across creative methods to incorporate technology into my lessons. For example, I often use YouTube videos that are relevant to our lesson content to enhance classroom discussions. In addition, I have established Messenger and email groups for my students, offering them a platform to exchange instructional materials and homework assignments and encouraging collaboration outside of the classroom. (Keshav)

During the COVID-19 pandemic, I faced difficulty in adapting online teaching and ensuring strong connections with my students. Coming back to the conventional classroom presented novel obstacles, particularly with students I had not encountered face-to-face. However, harnessing technology in my contemporary classroom, especially with

the aid of an overhead projector, has facilitated more seamless interactions and fortified relationships with my students. Despite the initial challenges, in-person interactions continue to be essential in fostering a strong connection between teachers and students. (Babita)

During my two years of teaching Zoom during the COVID-19 pandemic, the question that arose was how to reconcile the distance between students and me, particularly when we returned to the traditional classroom post-COVID-19. I initially struggled with not knowing the names and identities of the students and so did the students. I recently had a puzzling encounter with a student who greeted me, and I was uncertain of whether he was in my class. However, my modern classroom is technologically integrated, and I use an overhead projector, making it easier to maintain relationships with my students. In a face-to-face classroom, I can develop relationships with students by speaking with them, approaching them, or going to them. This allows me to maintain a strong relationship with my students. (Chitra)

The experiences shared by the participants, exemplified by Keshav and Babita, highlight the importance of technological tools in professional development activities, as well as the challenges and opportunities they present. Although the use of platforms such as Zoom during the pandemic facilitated the continuation of education and maintained student–teacher interaction, it also highlighted the importance of maintaining interpersonal relationships in face–to-face classrooms. Furthermore, the integration of ICTs into teaching practices was found to personalize instruction, foster creativity and innovation, and improve collaboration among students, as noted by the participants Raj and Bhumika. The pandemic-driven shift to virtual workshops and online sources for professional development, as articulated by Chitra, underscores the pivotal role of technology in fostering continuous learning opportunities for educators. For example,

Technological tools have greatly enhanced my ability to tailor my teaching practices to individual needs. Using online assessments and data analysis tools, I can customize my instruction to cater to the unique requirements of every student, creating a more inclusive learning environment. In addition, the incorporation of ICTs into my teaching has ignited a sense of creativity and ingenuity, enabling me to explore novel approaches and integrate simulations, virtual experiments, and illustrations into my lessons. (Raj)

Integrating ICT has not only elevated student engagement but also fostered collaboration between students in my classroom. Online discussion boards and group projects provide a platform for students to participate actively and gain knowledge from their peers, even in the absence of physical meetings. This cooperative method of learning has improved the educational journey for both me and my students. (Bhumika)

Engaging in virtual workshops during the pandemic has provided many opportunities for professional growth. I have been motivated to explore conferences, open source materials, and additional workshops to expand my teaching ability due to the increased reliance on technological connections caused by COVID-19 restrictions. Although faced with difficult circumstances, they have motivated me to embrace ongoing personal development and education in the digital era. (Chitra)

These insights underscore the transformative impact of technology on professional development, emphasizing the need for adaptation to meet the evolving demands of the classroom context. Online platforms, interactive tools, and multimedia resources offer avenues for instructors to experiment with new methodologies, incorporate simulations and virtual experiments, and provide real-world examples to improve course engagement and relevance.

In the post-pandemic era, the widespread adoption of ICT tools in education is expected to persist, given their demonstrated efficacy in enhancing student engagement and learning outcomes. However, it is imperative to address the digital divide to ensure equitable access to technology for all students. Additionally, the integration of technology should complement rather than replace face-to-face interaction and relationship-building with students, ensuring a holistic and balanced learning experience.

The shift to remote instruction amidst the COVID-19 crisis presented considerable obstacles in preserving meaningful relationships with my students. Reverting in-person instruction posed novel challenges, specifically in terms of forming connections with students whom I had not yet met in person. In contrast, the implementation of technological advancements, most notably the utilization of an overhead projector, has improved student engagement and fostered stronger relationships. Although in-person interactions continue to be highly valuable, the ongoing pandemic has emphasized the need for educational environments to strike a harmonious equilibrium between technology-facilitated and interpersonal relationships.

The knowledge gained from these experiences highlights the profound influence that technology has on professional growth, underscoring the necessity for adjustments to align with the ever-changing requirements of the academic environment. Continued integration of ICT tools into the field of education will require efforts to bridge the digital divide and maintain a harmonious balance between technology-facilitated and face-to-face exchanges. These measures are critical for establishing an inclusive and inclusive educational setting in the aftermath of the pandemic.

# Difficulties and Prospects Associated with the Integration of Technology into School Education in Nepal

Within the realm of K-12 education in Nepal, the incorporation of information and communication technologies (ICTs) poses considerable obstacles and exciting prospects. Using ICTs in the classroom, the participants in our study identified a variety of advantages, including improved teaching quality, increased student engagement, and the promotion of collaborative learning environments. However, the study identified several barriers that impede the successful integration of ICT into K-12 curricula. For example,

I have personally experienced one of the major challenges: the lack of adequate infrastructure to support the use of technology. This includes unreliable internet connections and a shortage of computers and other necessary equipment. Unfortunately, this issue is widespread in schools, making it challenging to integrate ICT tools fully into our teaching practices and professional development. The absence of reliable internet connectivity and sufficient technological resources poses significant obstacles, hindering the seamless integration of technology into teaching and limiting the potential of ICT-based instructional methods. This limitation restricts opportunities to engage with online resources, access multimedia materials, and participate in technology-facilitated interactive learning activities. (Bhumika)

Reflecting on my experiences, I have observed a digital gap, particularly among students and staff in rural areas with limited access to technology and the internet. This digital divide creates disparities in education and impedes the effective use of ICTs in teaching. Digital learning becomes especially challenging for students and staff without access to ICT tools, stable internet connections, or even basic technology gear. This gap severely restricts their ability to access online resources, instructional materials, and collaborative ICT-based teaching methods. (Kamal)

Kamana suggested ways to overcome these challenges and focused on technology as an opportunity. For example.

To address the digital divide, concerted efforts from various stakeholders are needed. First, infrastructure development is crucial for expanding access to technology and the internet, especially in rural areas. This involves establishing reliable internet connectivity, providing technological devices, and setting up computer labs in schools and colleges. Additionally, government programs, public– private partnerships, and community–driven initiatives can play vital roles in bridging this divide by providing resources and training to students and faculty members in underserved areas. Furthermore, scholarships and financial support can help ensure that students from economically disadvantaged backgrounds can afford the necessary devices and connectivity, thus strengthening the playing field in terms of access to technology and education. (Kamana)

The views of the participants reflected that the inadequate infrastructure that hinders the integration of technology in schools is a significant obstacle that educators in Nepal must overcome in terms of professional development or teaching-learning practices. These include challenges such as inconsistent internet connectivity, insufficient availability of computers and other essential equipment, and insufficient professional development for educators to proficiently incorporate ICT tools into their instructional methodologies. Insufficient infrastructure and training may impede educators' ability to effectively harness the capabilities of ICTs to enrich students' educational experiences.

Even more so in rural regions where access to technology and the internet is limited, the digital divide presents a substantial obstacle to the efficient implementation of ICT in K-12 education. A significant number of educators and students are unable to truly participate in online learning activities or utilize educational resources hosted on digital platforms because of their limited access to ICT tools. Addressing the digital divide requires a holistic approach encompassing infrastructure development, government initiatives, and community-driven initiatives that ensure that all educators and students have access to technology and training opportunities.

Teachers need ongoing support and professional development to integrate ICT tools into their instructional practices effectively. Insufficient training and support can induce reluctance or unreadiness among educators to incorporate technology into their lessons, thus preventing students' access to cutting-edge learning approaches. It is crucial to provide teachers with ongoing professional development opportunities and resources to effectively equip them to incorporate ICTs into their classrooms and adapt to the ever-changing educational environment.

Despite these obstacles, constructive efforts have been undertaken to facilitate the incorporation of ICTs in K-12 education in Nepal. As an illustration, certain educational institutions have established teacher development initiatives and granted instructors access to digital materials to facilitate the seamless integration of technology into the classroom. In addition, efforts are being made to enhance internet connectivity in educational institutions and broaden technological accessibility to mitigate infrastructure obstacles and bridge the digital divide. One of the participants in the interview expressed the following:

Based on my personal experience as an educator in secondary institutions in Nepal, I can attest to the profound impact that

technological integration has had on professional development. Through the use of online resources, educators have access to an extensive collection of tools and materials, which serve to stimulate innovation and promote collaboration among peers. Furthermore, by utilizing interactive platforms, it is possible to customize learning experiences to cater to the varied requirements of our students, resulting in increased levels of engagement and enhanced academic achievements. Online courses and seminars provide an additional level of flexibility that contributes to professional development by eliminating geographical constraints and facilitating ongoing education. In conclusion, this integration has the potential to fundamentally transform education, granting students and instructors the ability to flourish in the era of digitalization. (Keshav)

Keshav offers a perceptive analysis of the incorporation of technology in professional development programs for secondary institutions in Nepal, shedding light on several favorable consequences. Recognition of the vast assortment of tools and materials that can be accessed through online resources illustrates the wide range of possibilities that educators can utilize to improve their teaching approaches. The emphasis on peer collaboration exemplifies the collaborative nature of professional development. Using interactive platforms to personalize learning experiences for students is consistent with the objectives of addressing a wide range of educational requirements, encouraging active participation, and improving academic performance. Recognizing the value of the adaptability that online courses and seminars provide to overcome geographical limitations is vital for ongoing professional development. It is critical to recognize the existence of potential obstacles and constraints, including digital access issues, technological proficiency concerns, and the potential disadvantages of excessive reliance on online platforms. An improved level of analysis might delve into possible limitations and suggest approaches to mitigate them. In general, Ram's viewpoint emphasizes the profound impact that technological integration can have on education, which is consistent with the worldwide movement toward digitalization in learning environments.

Although the incorporation of ICTs into K-12 education in Nepal poses considerable obstacles, it also offers encouraging prospects for enhancing students' educational experiences. To optimize the educational experience for every student, K-12 institutions in Nepal can take advantage of the revolutionary capabilities of information and communication technologies (ICTs) by rectifying infrastructure deficiencies, narrowing the digital divide, and offering continuous professional growth and assistance to educators

#### DISCUSSION AND CONCLUSIONS

The discourse within this segment sheds light on the detailed consequences of incorporating technology into professional development, using perspectives derived from a wide range of experiences in educational settings. The shared experiences illuminate the opportunities and challenges that arise when technology is used to augment the process of teaching and learning. The study participants identified a multitude of opportunities that arise from the incorporation of technology in the realm of professional growth. The benefits frequently cited included the capacity to engage a wider audience, enhance the caliber of instruction and learning, and promote cooperation between educators and learners. The COVID-19 pandemic served as a catalyst, accelerating the adoption of ICT tools and compelling the investigation of innovative approaches. These experiences highlight the profound impact that technology has on facilitating the development of novel teaching approaches and accommodating unprecedented challenges. Aligning with (Courtney & Foster, 2023) the broader implications and applicability of the study, along with pertinent factors conducive to replication, are deliberated on and considered with the views of teachers at the secondary level in Nepal.

The incorporation of information and communication technologies (ICTs) into pedagogical practices fostered collaboration, encouraged innovation and creativity, and personalized instruction. By utilizing online assessments, data analysis tools, and multimedia resources, educators were able to customize their lessons to suit the unique requirements of each student, thus promoting inclusivity. The study conducted by (Martins et al., 2024; Muhayimana et al., 2023) also supports this study because they focused on smart teaching with a community of practices and networking. Cooperative learning approaches, such as those enabled through online discussion forums and group projects, serve as prime examples of how technology can encourage engaged students to contribute actively and share knowledge collaboratively.

In alignment with (Dawadi et al., 2020; Mifsud, 2023), the Nepalese context provides valuable insight into severe obstacles such as inadequate infrastructure, unreliable internet connectivity, and the digital divide that arises when attempting to incorporate technology into education. The digital divide, which is especially evident in rural regions, underscores the critical nature of coordination efforts to eliminate inequalities in technological access and foster a more inclusive academic setting. It is critical to promote infrastructure development, support governmental initiatives and encourage community-led initiatives as follows (Akram et al., 2021; Andreasen et al., 2022; Baser et al., 2021). Conquering the digital divide requires not only technological resources but also financial assistance and training prospects, underscoring the imperative for a comprehensive strategy that addresses these concerns in their entirety.

Despite these obstacles, Nepal is witnessing the implementation of constructive endeavors, as certain academic establishments are actively engaged in efforts to furnish instructors with digital resources and improve internet access. However, it is imperative to recognize possible barriers, including concerns about technological proficiency and digital access, and devise strategies to alleviate them. The discourse within this segment emphasizes the intricate relationship that exists between the integration of technology, the growth of professional expertise, and the ever-changing educational environment. Educators' accounts shed light on the profound impact that technology can have. However, they also underscore the criticality of continuous assistance, the enhancement of infrastructure, and collaborative efforts to address obstacles, especially in areas where digital disparities are substantial. The collective wisdom and knowledge derived from these varied experiences improve the overall understanding of how technology influences the trajectory of education in the coming years.

A closer look at the incorporation of technology in professional development presents significant challenges as well as favorable prospects. Research has emphasized the profound capacity of technology to revolutionize instruction, foster the active participation of students, and promote cooperation between instructors and learners. As a trigger, the COVID-19 pandemic has accelerated the implementation of ICT tools and forced educators to investigate new pedagogical approaches. However, challenges such as inadequate technological infrastructure, a digital divide, and issues related to technological proficiency impede the successful incorporation of technology into the educational system, specifically within the K-12 sector of Nepal. Infrastructure development, government initiatives, community-driven projects, and continuous professional development for educators are all efforts to address these challenges. Despite these challenges, positive endeavors are in progress, showcasing a dedication to capitalizing on the capabilities of technology in the field of education.

#### **IMPLICATIONS**

The knowledge gained from the experiences of educators emphasizes the criticality of ongoing assistance, infrastructure enhancement, and cooperative endeavors to surmount obstacles and ensure seamless and all-encompassing incorporation of technology in the field of education. Ensuring equal access to technology and education requires more than just providing technological resources. Financial assistance and training opportunities are also needed to bridge the digital divide.

Despite these difficulties, there are positive indications of progress, as certain educational institutions are actively striving to equip educators with digital resources and improve access to the internet. However, it is crucial to recognize and address possible obstacles, such as concerns about technological skills and the availability of digital resources. In the realm of professional development initiatives, the incorporation of technology has the power to revolutionize education, equipping educators and students with the necessary resources to excel in the digital age. Through careful examination and thoughtful consideration, educators can utilize technology to foster inclusive, captivating, and efficient learning environments for all individuals.

#### REFERENCES

- Akram, H., Yang, Y. X., Al-Adwan, A. S., & Alkhalifah, A. (2021). Technology integration in iigher education during COVID-19: An assessment of online teaching competencies through technological pedagogical content knowledge model. *Frontiers in psychology*, 12, 11. https://doi.org/10.3389/fpsyg.2021.736522
- Andreasen, J. K., Tomte, C. E., Bergan, I., & Kovac, V. B. (2022). Professional digital competence in initial teacher education: An examination of differences in two cohorts of preservice teachers. *Nordic Journal of Digital Literacy*, 17(1), 61-74. <u>https://doi.org/10.18261/njdl.17.1.5</u>
- Bai, B., & Lo, C. K. (2018). The barriers of technology integration in Hong Kong primary school English education: Preliminary findings and recommendations for future practices. *International Journal of Languages, Literature and Linguistics, 4*(4), 290-297. <u>https://doi.org/10.18178/ijlll.2018.4.4.189</u>
- Banihashem, S. K., Noroozi, O., den Brok, P., Biemans, H. J., & Kerman, N. T. (2023). Modeling teachers' and students' attitudes, emotions, and perceptions in blended education: Toward postpandemic education. *The International Journal of Management Education*, 21(2), 100803. <u>https://doi.org/10.1016/j.ijme.2023.100803</u>
- Baser, D., Akkus, R., Akayoglu, S., Top, E., & Gurer, M. D. (2021). Training inservice teachers through individualized technology-related mentorship [Article]. *Etr&D-Educational Technology Research and Development*, 69(6), 3131-3151. <u>https://doi.org/10.1007/s11423-021-10065-w</u>
- Braun, V., & Clarke, V. (2012). Thematic analysis. In P. M. C. H. Cooper, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Ed.), APA handbook of research methods in psychology (Vol. 2, pp. 57–71). American Psychological Association. <u>https://doi.org/10.1037/13620-004</u>
- Caneva, C., Monnier, E., Pulfrey, C., El-Hamamsy, L., Avry, S., & Delher Zufferey, J. (2023). Technology integration needs empowered instructional coaches: accompanying in-service teachers in school digitalization. *International Journal of Mentoring and Coaching in Education*, 12(2), 194-215. <u>https://doi.org/0.1108/IJMCE-04-2022-0029</u>
- Chang, S.-Y. (2023). Re-envisioning professional development for English medium instruction: a decolonial option. *Journal of Multilingual*

*Multicultural Development*, 10.1080/01434632.2023.2183960 1-14. https://doi.org/10.1080/01434632.2023.2183960

- Cheah, Y. H., Chai, C. S., & Toh, Y. (2019). Traversing the context of professional learning communities: development and implementation of Technological Pedagogical Content Knowledge of a primary science teacher [Article]. *Research in Science & Technological Education*, 37(2), 147-167. <u>https://doi.org/10.1080/02635143.2018.1504765</u>
- Cheng, M. M., Chuang, H. H., & Smith, T. J. (2022). The role of teacher technology experiences and school technology interactivity in teachers' culturally responsive teaching [Article]. Computers in the Schools: Interdisciplinary Journal of Practice, Theory, and Applied Research, 39(2), 163-185. <u>https://doi.org/10.1080/07380569.2022.2071231</u>
- Ciampa, K., & Gallagher, T. L. (2013). Professional learning to support elementary teachers' use of the iPod Touch in the classroom [Article]. *Professional Development in Education*, 39(2), 201-221. https://doi.org/10.1080/19415257.2012.749802
- Cohen, L., Manion, L., & Morrison, K. (2013). *Research methods in education*. Routledge.
- Courtney, M., & Foster, K. (2023). Social Network Analysis as a Driver of Continuous Improvement: A Case Study. *Journal of School Administration Research Development*, 8(2), 109-116. <u>https://doi.org/10.32674/jsard.v8i2.5344</u>
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (Fifth ed.). SAGE Publications, Inc.
- Dawadi, S., Giri, R. A., & Simkhada, P. (2020). Impact of COVID-19 on the education sector in Nepal: Challenges and coping strategies. *Sage Submissions. Preprint*, 0.31124/advance.12344336.v1. https://doi.org/0.31124/advance.12344336.v1
- Denzin, N. K., & Lincoln, Y. S. (2011). The Sage handbook of qualitative research.sage.
- Dysart, S. A., & Weckerle, C. (2015). Professional development in higher education: A model for meaningful technology integration. *Journal of Information Technology Education. Innovations in Practice*, 14, 255.
- Ekanayake, S. Y., & Wishart, J. (2015). Integrating mobile phones into teaching and learning: A case study of teacher training through professional development workshops. *British Journal of Educational Technology*, 46(1), 173-189. <u>https://doi.org/10.1111/bjet.12131</u>
- Ge, L. (2017). Study on the professional development of college English teachers in the big data era. Social science, education and human science, 10.12783/dtssehs/mess2017/12203 <u>https://doi.org/10.12783/dtssehs/mess2017/12203</u>

- Goh, D., & Kale, U. (2016). The urban–rural gap: project-based learning with Web 2.0 among West Virginian teachers. *Technology, Pedagogy and Education*, 25(3), 355-376. https://doi.org/10.1080/1475939x.2015.1051490
- Hauerwas, L. B., Gomez-Barreto, I. M., & Fernández, R. S. (2023). Transformative innovation in teacher education: Research toward a critical global didactica. *Teaching and Teacher Education*, 123, 103974. <u>https://doi.org/10.1016/j.tate.2022.103974</u>
- Hew, K. F., Jia, C., Gonda, D. E., & Bai, S. (2020). Transitioning to the "new normal" of learning in unpredictable times: pedagogical practices and learning performance in fully online flipped classrooms. *International Journal of Educational Technology in Higher Education*, 17, 1-22. <u>https://doi.org/10.1186/s41239-020-00234-x</u>
- Jiang, L., & Gao, J. (2020). Fostering EFL learners' digital empathy through multimodal composing *51*(1), 70-85.
- Johinke, R., Cummings, R., & Di Lauro, F. (2023). Reclaiming the technology of higher education for teaching digital writing in a post—pandemic world. *Journal of University Teaching Learning Practice*, 20(2), 01.
- Kekeya, J. (2016). Analyzing qualitative data using an iterative process. Contemporary PNG Studies, 24.
- Leavy, P. (2017). *Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches* (10.1111/fcsr.12276). Guilford press. <u>https://doi.org/10.1111/fcsr.12276</u>)
- Lim, C. P., Ra, S., Chin, B., & Wang, T. (2020). Leveraging information and communication technologies (ICT) to enhance education equity, quality, and efficiency: case studies of Bangladesh and Nepal. *Educational Media International*, 57(2), 87-111.
- Lin, Y., & Yu, Z. (2023). Extending technology acceptance model to highereducation students' use of digital academic reading tools on computers. *International Journal of Educational Technology in Higher Education*, 20(1), 34. <u>https://doi.org/10.1186/s41239-023-00403-8</u>
- Martins, J., Moreira, T., Cunha, J., Núñez, J. C., & Rosário, P. (2024). Be SMART: Promoting goal setting with students at-risk of early school leaving through a mentoring program. *Children Youth Services Review*, 157, 107423. <u>https://doi.org/10.1016/j.childyouth.2023.107423</u>
- Mifsud, D. (2023). Rethinking the concept of teacher education: a problematization and critique of current policies and practices. In *Teacher Education as an Ongoing Professional Trajectory: Implications for Policy and Practice* (https://link.springer.com/chapter/10.1007/978-3-031-28620-9\_1 pp. 1-23). Springer.

Mohamad Hasim, S., Rosli, R., Halim, L., Capraro, M. M., & Capraro, R. M. (2022). STEM professional development activities and their impact on teacher knowledge and instructional practices. *Mathematics*, 10(7), 1109.

- Muhayimana, T., Schares, D., & Ruxton, M. (2023). Building educational leaders' capacity in a community of practice. *Journal of School Administration Research Development*, 8(1), 13-23. https://doi.org/10.32674/jsard.v8i1.4773
- Potter, S. L., & Rockinson-Szapkiw, A. (2012). Technology integration for instructional improvement: The impact of professional development. *Performance Improvement*, 51(2), 22-27. https://doi.org/10.1002/pfi.21246
- Reding, T., Moore, C., Pelton, J. A., & Edwards, S. (2022). Barriers to change: Social network interactions not sufficient for diffusion of high-impact practices in STEM teaching. *Education Sciences*, 12(8), 512.
- Reinsfield, E. (2016). Technology education in New Zealand context: Disparate approaches to meaning making of the curriculum and the implications for teachers' evolving knowledge for practice. *Australasian Journal of Technology Education*, 3(1). <u>https://doi.org/10.15663/ajte.v3i1.39</u>
- Schipper, J. M., & Yocum, R. G. (2016). Interactive whiteboard technologies in high school: A comparison of their impact on the levels of measure that determine a return on investment. *Journal of Educational Technology Systems*, 44(4), 377-403. <u>https://doi.org/10.1177/0047239515615846</u>
- Simmie, G. M. (2023). Teacher professional learning: a holistic and cultural endeavour imbued with transformative possibility. *Educational review*, 75(5), 916-931. <u>https://doi.org/10.1080/00131911.2021.1978398</u>
- Stewart, B., Miklas, E., Szcyrek, S., & Le, T. (2023). Barriers and beliefs: a comparative case study of how university educators understand the datafication of higher education systems. *International Journal of Educational Technology in Higher Education*, 20(1), 1-20. https://doi.org/10.1186/s41239-023-00402-9
- Ta'amneh, M. A. A. (2021). Attitudes and challenges toward virtual classes in learning English language courses from students' perspectives at Taibah university during COVID-19 pandemic. *Journal of Language Teaching*, 12(3), 419-428.
- Zhou, L., Li, F., Wu, S., & Zhou, M. (2020). "School's out, but Class's on", the largest online education in the world today: Taking China's practical exploration during the COVID-19 epidemic prevention and control as an example. *Best Evidence of Chinese Education*, 4(2), 501-519

**Yadu Prasad Gyawali**, Assistant Professor at Mid-Western University (MU), Surkhet, in Nepal, Yadu has been contributing to teaching and research domains of English Language teaching. In addition to his teaching duties, he serves as a teacher trainer, consultant, and editor for various journals. He is also pursuing a Ph.D. at Chandigarh University in India. His research interests include teachers' professional development and the use of ICT in second language education. Email: yadu.gyawali@gmail.com

**Meghna Mehndroo** is the Professor at Chandigarh University, Punjab, in India. She has been contributing to teaching, research, training and administrative functioning. Currently, she is the principal of University Institute of Teacher Training and Research (UITTR), Chandigarh University. Email: <u>meghna3691@gmail.com</u>

> Manuscript submitted: March 5, 2024 Manuscript revised: August 23, 2023 Accepted for publication: September 28, 2024