# The Utilization of Digital Tools in the Classroom: A Phenomenological Study of University Educators' Experiences

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## Abstract

With an emphasis on their personal experiences, this qualitative study investigates how college instructors incorporate digital resources into their lesson plans. The study explores the kinds of digital tools used, perceived advantages, difficulties, and methods for getting beyond obstacles to successful technology integration, all while adhering to a phenomenological research style. Three university-level instructors from Drabya Shah Multiple Campus in Gorkha, Nepal, participated in semi-structured interviews. The use of digital tools in the classroom, the advantages of digital integration, the difficulties faced by teachers, adaptive strategies, institutional support, and the necessity of policy and curriculum alignment were the six main themes that emerged from the data analysis using thematic analysis (Braun & Clarke, 2006).

Results show that although digital tools improve accessibility, engagement, and the effectiveness of education, teachers still have to deal with severe infrastructure constraints, uneven internet connection, device inequalities, and a lack of proper training. Through individual endeavors, teamwork, and calculated adjustments, participants showed resilience in spite of these limitations. By emphasizing the need for systemic changes in institutional infrastructure, teacher preparation programs, and educational policies to guarantee sustainable technology integration, the study adds to the conversation on digital pedagogy. Teachers, organizations, and legislators are given suggestions on how to promote the equitable and purposeful use of digital tools in higher education environments.

## Introduction

The use of digital tools in education has transformed traditional teaching and learning approaches, enabling individualized, adaptable, and interactive sessions. These tools, such as cellphones, online teamwork platforms, Learning Management Systems (LMS), and multimedia content, provide immediate feedback, keep students interested, and access to the latest academic materials. However, there are still gaps in understanding how digital tools shape teaching and learning within institutional limitations. Constructivism, which emphasizes experiential learning, is supported by digital tools that facilitate interactive and student-centered learning methods.

This study aims to close this gap by examining how Nepali university instructors feel about integrating digital technologies and highlighting factors that facilitate and hinder successful technology adoption. It focuses on the interaction between personal agency and systemic limitations in digital pedagogy, focusing on the micro-level experiences of teachers who must modify digital tools to fit their unique educational environments. The study offers a sophisticated knowledge of technology integration that transcends broad presumptions by looking at how educators deal with varied degrees of digital literacy, uneven internet connectivity, and infrastructure constraints.

The theoretical framework's applicability to current debates on digital equity in education is another crucial feature. Differences in digital literacy, device availability, and technical infrastructure can make existing educational inequities worse. This study expands on these conversations by placing them in the context of higher education in Nepal, where opportunities for technology-enhanced instruction are shaped by infrastructure difficulties and resource constraints. The study highlights the necessity of systemic solutions that prioritize fair access, professional development, and institutional support above flimsy technology adoption by elevating educators' voices.

## Methodology

Using a qualitative phenomenological method, this study investigates the real-life experiences of college instructors who use digital resources in their instruction. The goal of phenomenology as a study methodology is to comprehend people's subjective experiences and the interpretations they make of them (Smith, Flowers, & Larkin,

2022). This method allows for a thorough investigation of how teachers view and manage the incorporation of digital technologies into their teaching environments, which makes it especially appropriate for the research goal. Through an emphasis on the viewpoints of the participants, the research seeks to reveal the fundamental patterns of their experiences, illuminating the potential and difficulties of digital pedagogy.

**Research Design**

Husserlian phenomenology, which stresses putting aside preconceptions in order to better comprehend the core of lived experiences, serves as the foundation for the study design (Husserl, 1913/1970). In order to accomplish this, the study makes use of semi-structured interviews, which guarantee data collecting consistency while enabling participants to express their experiences in their own terms. Open-ended questions in the interview procedure are intended to extract in-depth explanations of how educators use digital technologies, the advantages they see, the difficulties they face, and the methods they take to get past these barriers. The study's objective of gathering detailed, evocative narratives that capture the intricacy of technological integration in higher education is in line with this methodological decision.

The study uses a number of tactics to guarantee legitimacy and rigor. Participants were given the chance to examine and verify the accuracy of their interview transcripts and interpretations as part of the first step, known as member checking. Second, triangulation was used by comparing the participant narratives with pertinent educational technology and digital pedagogy literature. Third, in order to reduce their impact on data analysis, the researcher documented their own biases, presumptions, and interpretations throughout the study, maintaining researcher reflexivity. Lastly, peer debriefing was used to improve methodological integrity and validate interpretations by discussing preliminary findings with seasoned qualitative researchers.

**Participant Selection**

Participants in this study were chosen from among three university-level instructors at the Drabya Shah Multiple Campus in Gorkha, Nepal. Higher education experience, digital tool proficiency, and a readiness to engage in in-depth interviews were among the selection criteria. To find people who might offer deep insights into the research

topic, purposeful sampling was employed. The chosen teachers represent a variety of topic areas and educational situations by teaching social science, management, and English education.

**Data Collection**

For practical reasons, semi-structured interviews were done both in-person and via video conference to gather data. With the participants' permission, audio recordings of each 45–60 minute interview were made. In order to allow for flexibility in questioning responses based on participants' narratives, interviews were conducted according to a structured guide. The following questions were part of the interview protocol:How do you currently use digital tools in your teaching?

- What benefits have you observed from incorporating digital tools?
- What challenges do you face when using digital tools in the classroom?
- How do you overcome these challenges?
- What kind of institutional support do you receive regarding digital tool usage?
- How do you think digital tools should be integrated into educational policies and curricula

To ensure that the participants' words were preserved, every interview was transcribed verbatim. Before starting the coding procedure, transcripts were examined several times to become acquainted with the data.

**Data Analysis**

The data was analyzed using thematic analysis, as described by Braun and Clarke (2006). By finding themes and patterns in qualitative data, this method enables a methodical but adaptable approach to interpretation. Six essential stages were taken in the analysis:

- Getting to know the data: In order to fully comprehend the participant narratives, researchers immersed themselves in the interview transcripts.
- Creating first codes: Important concepts and insights about the use of digital tools were captured by coding meaningful text passages.
- Finding themes: Codes were categorized into possible themes that represented

recurring themes in participant answers.

- Themes were reviewed to make sure they were coherent and in line with the goals of the study.
- Identifying and defining topics: The final themes were well-stated and backed up by statements made by participants.
- The report was produced by synthesizing the findings into a cohesive narrative and using direct quotes to highlight important top.

The research used known qualitative research principles, such as extensive description, persistent observation, and prolonged engagement, to increase credibility (Lincoln & Guba, 1985). To further record decision-making procedures during data gathering and analysis, audit trails were kept up to date. All participants gave their informed consent before any data was collected, demonstrating that ethical standards were also respected.

This research guarantees a thorough and significant investigation of educators' experiences with digital technologies by using a strict phenomenological method. The data analysis results are shown in the next section, where they are categorized into six major themes that surfaced from the participant narratives.

## Findings

Six major themes emerged from the study of the interview data, summarizing the experiences of college instructors who use digital technologies in their instruction. Among these themes are: a) the use of digital tools in the classroom; b) the advantages of digital integration; c) the difficulties faced; d) solutions for these difficulties; e) institutional support; and f) the necessity of curriculum and policy alignment. Direct quotes from participants are used to support each theme, showcasing the diversity of their viewpoints and experiences.

### Theme 1: Use of Digital Tools in the Classroom

Every participant stated using a range of digital resources in their instruction, from simple gadgets like laptops and cellphones to more sophisticated programs like communication platforms and Learning Management Systems (LMS). T1 highlighted how he delivers interesting educational materials using mobile devices, computers, projectors, and internet services: "I use different technology and technological tools

digital tools like mobile, laptop, projector, Internet."

"I am using digital technology in teaching and learning in a number of ways… especially for making presentations and sharing e-resources," T2 added, describing his dependence on digital technologies for online assessment facilitation, e-resource sharing, and presentation creation.

The relevance of digital whiteboards and multimedia content was highlighted by T2, which observed the growing integration of digital tools in both traditional and online instruction: "Digital technology projector slide presentation audio video digital technology interactive board…"

According to the participants, digital tools were utilized to improve student involvement and interactivity in addition to delivering content. Videos, animations, and interactive tests were commonly used as multimedia components to provide energy and accessibility to the lessons.

**Theme 2: Benefits of Digital Integration**

The use of digital tools has been linked by educators to a number of benefits, such as increased student engagement, time savings, access to up-to-date information, and increased instructional flexibility. T1 emphasized how effective lesson planning and in-the-moment student interaction were made possible by digital tools: It facilitates student engagement in a variety of ways and is beneficial to both teachers and learners. Numerous advantages, including improved student engagement, time savings, access to current information, and greater instructional flexibility, have been associated by educators with the use of digital tools. T1 highlighted how digital tools enabled efficient class planning and real-time student interaction: It benefits both teachers and students by facilitating student participation in a number of ways.

**Theme 3: Challenges Encountered**

Despite the apparent advantages, teachers found it extremely difficult to use digital tools efficiently. Infrastructure constraints, inconsistent internet access, unequal device access, and inadequate technical expertise were among the main problems. "Equipment which is not sufficiently available in all classrooms… problem of internet facility available—its speed or connectivity," T1 noted, highlighting the dearth of necessary equipment in many classrooms.

T2 highlighted these worries, pointing out that using online platforms was limited by erratic internet bandwidth: "Not all classrooms have high bandwidth… students depend on smartphones."

T3 further stated that proper planning and institutional support were necessary for digital learning platforms, but these were frequently absent:

"Digital teaching and learning are required by digital learning platforms."

These difficulties highlight more general structural flaws in the infrastructure of education, especially in environments with little resources. Teachers find it difficult to fully utilize the potential of digital technologies in the absence of dependable internet, adequate technology, and proper training.

**Theme 4: Strategies for Overcoming Obstacles**

Several adaptation tactics were used by participants to lessen the difficulties caused by technological and infrastructure limitations. These included moving classrooms to better-equipped locations, implementing blended learning methods, working with administrators and colleagues, and making individual efforts to make up for institutional weaknesses. T1 explained how he made use of his own cell data to guarantee internet connection during class: "I make use of my own initiative to supply internet from my mobile data. Sometimes I utilize digital devices like the internet, and other times I use physical items like books. T2 suggested moving classes to computer laboratories or seminar halls with more reliable internet access: "There, we have a regular Internet connection, so sometimes I take students to the hall."Addressing technological limitations also required administrative assistance and peer collaboration. In order to solve problems, participants regularly asked for help from peers and participated in unofficial knowledge-sharing.

**Theme 5: Institutional Support**

The provision of projectors, computers, internet connections, e-library resources, and yearly training programs in digital pedagogy were among the institutional support that the participants acknowledged to some extent. "Our institution has provided laptops for the faculties… more than three or four internet services in the campus," Dharma said, highlighting the abundance of digital infrastructure on campus. The

availability of e-library resources and recurring training programs were emphasized by T2: "Campus has provided us e-library facilities… every year institution provides training." Nonetheless, there were clear differences in the quality and accessibility of each classroom. While some facilities lacked even the most basic digital infrastructure, others provided reliable internet connectivity. This discrepancy made it more difficult to integrate technology consistently and reaffirmed the necessity of standardized institutional assistance.

**Theme 6: Need for Policy and Curriculum Alignment**

The significance of creating clear regulations to control the use of information and communication technology (ICT) in the classroom was emphasized by both T1 and T2. They maintained that digital integration remained disjointed and unsustainable in the absence of formal norms. "Any institutions should make clear policy to integrate ICT into teaching and learning," T1 argued in support of explicit institutional rules.T2 underlined the necessity of matching digital competencies with assessment techniques and course design, saying, "We cannot use ICT in every class because our course is structured in a traditional model." Participants suggested that digital literacy requirements be incorporated into national education frameworks to ensure that educators and learners had the necessary abilities. In addition, it was found that promoting long-term technology adoption in higher education required curricular change and continual professional development. These results show how the revolutionary potential of digital tools and the structural obstacles preventing their full integration interact in a complicated way. These findings' significance for digital pedagogy, institutional support, and policy development will be highlighted in the following section, which will also examine them in light of the body of previous literature.

**Discussion**

The study highlights the challenges faced by educators in Nepal in integrating digital tools into university-level instruction, despite the benefits of digital pedagogy. These include infrastructural limitations, inconsistent internet access, device availability disparities, and inadequate institutional support. The study emphasizes the need for

standardized institutional investments in educational technology, standardized training, and professional development opportunities for digital pedagogy. It also calls for institutional and policy-level reforms to facilitate digital integration in higher education, aligning digital competencies with curriculum design and assessment methods. The findings contribute to existing theoretical frameworks in digital pedagogy and provide empirical insights into the lived experiences of educators in non-Western, resource-constrained settings.

**Theoretical Contribution**

The findings of this study contribute to the theoretical discourse on digital pedagogy by highlighting the interplay between individual agency, institutional structures, and policy frameworks in shaping technology integration in higher education. A central insight from the research is the tension between educators' proactive adaptation to digital tools and the systemic constraints that limit their full potential. This duality reflects broader discussions in educational technology literature, particularly regarding the concept of "technological affordances" and the conditions under which these affordances can be realized (Zhao & Frank, 2003). While digital tools offer numerous benefits such as enhanced engagement, access to updated resources, and flexible instructional modalities—their effective implementation is contingent upon infrastructural support, professional development, and policy alignment.

One of the key theoretical contributions of this study is its emphasis on the role of educator agency in navigating technological barriers. The participants demonstrated resilience and creativity in adapting digital tools despite infrastructural limitations, often relying on personal resources and collaborative problem-solving. This aligns with the concept of "teacher agency," which refers to the capacity of educators to exercise control over their instructional practices and respond to contextual challenges (Priestley, Biesta, & Robinson, 2015). The findings suggest that while external factors such as institutional support and policy frameworks significantly influence technology adoption, educators' individual efforts play a crucial role in sustaining digital integration. This perspective expands existing theories of digital pedagogy by illustrating how educators actively negotiate the boundaries between institutional constraints and pedagogical innovation.

Additionally, the study contributes to the understanding of digital equity in education by exposing the disparities in access to technological resources. Participants highlighted how inconsistent internet connectivity, inadequate device availability, and uneven distribution of digital infrastructure created barriers to effective technology use. These findings reinforce arguments made by scholars such as Warschauer (2004), who contend that digital inequality extends beyond mere access to technology and encompasses issues of digital literacy, institutional support, and policy-driven initiatives. The experiences of Nepali educators underscore the need for a holistic approach to digital equity that considers not only the provision of technological resources but also the development of supportive ecosystems that enable meaningful engagement with digital tools.

Furthermore, the research enriches the discourse on institutional and policy-level reforms in digital education. Participants consistently emphasized the importance of developing clear policies that govern the integration of Information and Communication Technology (ICT) in teaching and learning. This aligns with the concept of "policy enactment," which examines how educational policies are translated into practice within local contexts (Ball, Maguire, & Braun, 2012). The findings suggest that while national-level policies may advocate for digital transformation, their effectiveness depends on institutional-level implementation, including the allocation of resources, provision of training, and establishment of supportive infrastructures. The case of Nepali university educators illustrates how policy intentions can be undermined by practical constraints unless accompanied by tangible investments in digital infrastructure and educator development.

To visually represent the relationships between these theoretical constructs, Figure 1 presents a conceptual model that synthesizes the key themes identified in the study. The model illustrates how educator agency interacts with institutional structures and policy frameworks to shape the integration of digital tools in teaching. At the core of the model is the educator, whose instructional practices are influenced by personal adaptability, professional training, and access to digital resources. Surrounding the educator are institutional factors, including infrastructure availability, administrative support, and professional development opportunities. Beyond the institutional level, policy frameworks at the national and regional levels determine the broader conditions

for digital integration, including funding allocations, curriculum alignment .

## Conclusion

This qualitative study explores the experiences of university educators integrating digital tools into their teaching practices. It highlights the complex interplay between perceived benefits of digital integration, such as enhanced student engagement and resource accessibility, and persistent challenges from infrastructural limitations, inconsistent internet connectivity, disparities in device availability, and inadequate institutional support. Despite these constraints, educators demonstrate resilience and adaptability by employing creative strategies to sustain technology-enhanced instruction. The study emphasizes the role of educator agency in navigating technological challenges and the need for professional development initiatives. It also highlights the disparities in access to technological resources, highlighting the need for a holistic approach to digital equity that considers not only the provision of technological resources but also the development of supportive ecosystems. The study recommends several recommendations for educators, institutions, and policymakers to foster meaningful and equitable use of digital tools in higher education.

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