

Policy and Practice of ICT Integration in English Language Teaching: Insights from University Teachers

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Abstract

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This Information and Communication Technology (ICT) is an inevitable part of modern society. The advent of ICT has profoundly influenced all sectors of modern society, particularly the field of education. So, this study aims to explore the policy and practice of ICT integration in English language teaching in Nepal's higher education. To accomplish this, five English language teachers were purposively selected from five T.U. affiliated campuses of Pokhara, Kaski. Data were collected through semi-structured interviews. The findings of the study reported that ICT integration enhances students' English language learning by motivating and engaging them in interaction and various language classroom activities. Similarly, university teachers integrate ICT in ELT for

planning, material development, assessment, and developing learners' critical skills in reading and writing. However, teachers face challenges due to the gap between ICT policy and its practice in teaching and learning, including English language teaching and learning in Nepal's higher education. Thus, the findings of the study contribute to making ICT-friendly policy and effective implementation by minimizing the policy-practice gap, institutional support, and sustained professional development programmes for university teachers.

Keywords: English language teaching (ELT), ICT integration, policy and practice, ICT tools, professional development

Introduction

The widespread adoption of Information and Communication Technologies (ICT) has significantly influenced various aspects of life, including education. ICT integrates different computer and internet-based technologies, with related software and applications (Marcelle, 2000). It is the combination of hardware and technology used to create, disseminate, store, manage, and analyze information (Tinio, 2002;

Zakaria & Khalid, 2016). ICT incorporates technologies such as radio, television, telephones, computers, satellites, wireless systems, and the internet (UNDP, 2003). It is a powerful tool for enhancing the quality of teaching and learning (Chan, 2023). The advancement of ICT has replaced the traditional teaching pedagogy, creating more opportunities for quality education in the developed and developing countries (Huseinovic, 2023). The shift in pedagogy with ICT integration seems to be part of the teaching and learning process in the 21st century.

Technology integration pedagogy can engage students in various learning activities, making the classroom learner-centered and technology-friendly. To address the demand of the 21st century techno-friendly learners, ICT has a significant influence on the teaching learning process, along with administrative efficiency and teachers' professional development (Parette & Blum, 2013). The major supports of ICT in education include resource management, creating innovative ideas, and empowering teachers with various teacher training packages through online mode, connecting many professional organizations (UNESCO, 2014). Thus, the growing use of ICT in the teaching learning process, along with administrative and training programmes, may contribute to the holistic development of the children. This situation makes ICT an important pillar of education (Joshi, 2017), and the schools and universities need to revisit their existing curricula, incorporating ICT policies to reduce the policy-practice level gap.

Considering the role of ICT-integrated teaching in education, the concerned authorities, including the three levels of government, need to formulate a concrete ICT policy in rural communities. In Nepal, the Ministry of Education has also recognized ICT's potential to improve educational delivery, outcomes, and impact, as reflected in national policies and strategies. The *ICT Master Plan (2013)* emphasizes ICT's capacity to expand educational opportunities and promotes e-education initiatives. Tribhuvan University's *information technology policy-2023* also deals with the importance of ICT in education and its use and regulation by its users. This indicates the importance of computer education in fostering technological and scientific progress while advocating for broader ICT integration to improve the quality of education. Furthermore, studies in various contexts (Rana, 2018; Hafifah, 2020; Maru et al., 2021) show that students performed better in foreign or second language learning provided that their classrooms are equipped with ICT technology supporting ICT integrated learning.

ICT in education has become a means to achieve educational goals in Nepal. Various policies and activities have been developed to extend its use. The National Center for Educational Development (NCED), for example, now conducts many programs for developing teachers through radio and television programs, and

computers have been introduced as a subject at the secondary level. Under different universities, computer programs such as Computer Science, Computer Engineering, BIT, BCA, and CSIT have been introduced in both Bachelor's and Master's programs. Tribhuvan University, for example, has launched a Bachelor's in Education program specializing in computer science. Furthermore, the Ministry of Education (MOE) has taken ICT initiatives by establishing computer labs in schools, connecting classrooms via the Internet, and developing interactive digital learning materials in core subjects such as Nepali, mathematics, English, and science (Bhattarai, 2017). Despite these, ICT equipment in schools has been used more for administrative purposes.

Nepal's school and university-level English curricula have given priority to ICT integrated teaching and learning process. However, there may be a gap between ICT policy and practices in higher education. In this context, this study aims to explore the gap between ICT policy and practices in ELT in higher education by taking insights from university teachers and the challenges they face while integrating ICT with ELT pedagogy. The following research questions guided the study:

1. How do ICT policies in Nepal's higher education influence the integration of ICT into English language teaching?
2. What are the challenges that university teachers face in implementing ICT in ELT classrooms?

Review of Literature

This section presents a review of ICT policy and practices in Nepal's higher education, ICT integration in English language education, and current ICT landscapes and research gaps.

ICT Policy in Nepal's Higher Education

There is a gradual shift in ICT policy and practice in Nepal in education. Although the ICT policy of 2000 and its revision in 2010 emphasized infrastructure development and internet access to educational institutions (Karki, 2019), collaborating government and non-government organizations, the School Sector Reform Plan (2009-1015), the Three-Year Plan (2011-2013), and the School Sector Development Plan (2016-2023) focused on ICT integrated pedagogy in teaching, administration and assessment sectors (MoE, 2016). However, the main focus of ICT policy was on school education, and the higher education institutions lacked infrastructure development, technical support, and training for teachers.

The Education Master Plan (2013-2017) seemed more effective in ICT development and operation in Nepal's educational institutions. The plan contributed

mainly to infrastructure development, human resource development, management of digital learning technology, and management of the learning management system (Acharya, 2021; Bhattarai, 2017). Similarly, the focus of the plan was on reducing the digital divide, promoting e-learning, and enhancing teachers' competency in ICT-integrated pedagogy. However, the plan lacked a systematic monitoring system in Nepal's higher education institutions, where teachers face challenges in its effective implementation due to resource disparities (Rana, 2018). Moreover, the plan was directed towards access management, rather than ICT integration in classroom teaching and learning in higher education.

At the institution level, Tribhuvan University has developed its Information Technology Policy -2023, which provides an extensive framework for managing, securing, and enhancing ICT use across its central and affiliated campuses (Tribhuvan University, 2023). The policy covers comprehensive connectivity, digital infrastructure, LMS, EMIS, automation, cybersecurity, data protection, and online examinations. It focuses on the creation of digital learning resources, equitable access to technology, and professional development for staff and students through digital literacy and pedagogy training. The ICT Steering Committee, IT and Innovation Center, and departmental IT units oversee policy implementation, monitoring, and review (Ministry of Information & Communication, 2019). Despite these policy developments, many higher education institutions faced problems, like resource limitations, poor connectivity, and pedagogical support for effective implementation (Neupane, 2021). This situation reflects the policy-practice gap in ICT integration in general, and in the ELT classroom, particularly. Although many studies on ICT focus on teachers' general experiences, access to ICT, and learners' outcomes, the policy-practice gap focusing on Nepal's higher education is an underexplored area, and this study has bridged this gap.

ICT Integration in English Language Education and Challenges

Studies in various contexts highlighted the role of ICT in ELT and recommended transforming the traditional classrooms into an ICT-integrated teaching and learning centre. For example, Wong et al. (2006) reported that ICT empowered teachers' pedagogical skills by enabling them for autonomous learning, providing authentic learning resources, developing confidence, and career promotion opportunities. The interactive and dynamic nature of ICT enables addressing learners' diverse needs, fostering learner autonomy, and enhancing the overall quality of teaching. The integration of ICT in English language teaching is highly significant because it enhances communication, builds home-school connections, and provides authentic resources for language learning. ICT tools are the building blocks of

modern society (Daniels, 2002). Many countries in the world believe that ICT skills are the core competencies, along with literacy and numeracy.

Various ICT tools support teachers in enhancing language skills in ELT classrooms. For example, the tools, such as radio and television, were popularly used as effective instructional resources in the past (Tinio, 2002). However, with the rapid development of ICT in education, more recent tools with multiple functions are being used in practice. Many teachers frequently use PowerPoint, multimedia projectors, e-books, audio-books, webinars, interactive whiteboards, mobile applications, and web-based platforms as ICT technology. which provides opportunities for using diverse learning resources, involves students in collaborative tasks, and enriches interaction between teachers and students and students-students (Viberg & Gronlund, 2017). Earlier, Grace and Kenny (2003) reported how the internet supported learners in communicative activities, providing access to native speakers through emails and online exchange, and ample authentic learning resources. Likewise, ICT helps learners to access authentic resources, build confidence, and promote higher-order thinking skills. However, the success of ICT integration varies depending on context, curriculum, and teacher practices (BECTA, 2008). Language lab, audio-visual aids, and mobile learning tools further expand learners' opportunities to improve their pronunciation, grammar, and communicative skills. Moreover, Alqahtani and Rajkhan (2020) explained how ICT shifted teachers from teacher-centered instruction to student-centered instruction by motivating learners for active participation. Furthermore, ICT-integrated pedagogy enhanced higher-order thinking skills of teachers to enable them to analyze, create, collaborate, and problem-solving strategies through digital tools (Schmidt-Crawford et al., 2021).

The concept of ICT in Nepal has emerged later than in other developed countries in the world; however, its impact has been increasing day by day in every sector of life. In the field of education, it provides quality learning opportunities and develops competitive human resources. The integration of ICT with pedagogy is shaped by the knowledge, competence, and skills they learn during their college years (Thomas et al., 2013). However, the secondary level curriculum of Nepal considers ICT as a subject rather than as a pedagogical tool. While the global trend is moving toward blended learning models enhanced by digital resources, Nepal is struggling in planning, implementation, and the maintenance of proper records on technology use in schools.

ICT in education has become a means to achieve educational goals in Nepal. Various policies and activities have been developed to extend its use. The National Center for Educational Development (NCED), for example, now conducts many

programs for developing teachers through radio and television programs, and computers have been introduced as a subject at the secondary level. Under different universities, computer programs such as Computer Science, Computer Engineering, BIT, BCA, and CSIT have been introduced in both Bachelor's and Master's programs. Tribhuvan University, for example, has launched a Bachelor's in Education program specializing in computer science. Furthermore, the Ministry of Education (MOE) has taken ICT initiatives by establishing computer labs in schools, connecting classrooms via the Internet, and developing interactive digital learning materials in core subjects such as Nepali, mathematics, English, and science (Bhattarai, 2017). Despite these, ICT equipment in schools has been used more for administrative purposes.

Despite its importance, implementing ICT in the language classroom has many challenges in its integration into language learning. They include inadequate infrastructure, a lack of reliable Internet access, high costs of devices, and limited technical support. There are some teacher-related challenges, such as low ICT skills, insufficient training, and lack of confidence, which hinder effective use (Hara, 1998; Neupane, 2021), and some learner-related challenges, including differences in age, learning styles, motivation, and digital literacy, which affect outcomes (Muilenberg, 2001). These challenges highlight the need for greater investment in teacher preparation, digital literacy programs, and sustainable infrastructure.

The above studies suggest that ICT plays a significant role in improving teaching and learning in Nepal, particularly in the area of English language education. However, the gap between policy and practice remains infrastructural limitations, and a lack of adequate teacher training poses serious challenges. While ICT can enhance learner autonomy, motivation, and engagement, its effectiveness in Nepal ultimately depends on continuous policy implementation, contextualized teacher training, and equitable access to resources.

Current Landscapes and Research Gaps

Previous studies have shown that students' and teachers' attitudes, perceptions, and experiences with ICT integration in English language teaching and learning, combining ICT with conventional teaching (blended learning), promote teaching and learning outcomes (Neumeier, 2005). Higher secondary English teachers in Kathmandu Valley had positive attitudes toward computers and the Internet, with a growing interest in expanding access (Khanal, 2008). Ibrahim (2010) focused on the shift from teacher-centered to learner-centered approaches supported by ICT, while Shrestha (2012) demonstrated that English teachers use online resources mostly for personal development and communication. For Makura (2014), students in higher

education largely consider technology with computer use, reflecting limited exposure to diverse ICT tools.

Studies on the effectiveness of ICT in English language teaching have positive outcomes. ICT implementation improves students' readiness and competence. Technology enhances learners' exposure to meaningful language input. Linton (2015) stressed the need for technology integration despite students' limited ability to use it independently. Yadav (2016) emphasized that online resources support students' academic development, though the lack of teacher training and infrastructure remains a challenge. Teachers' challenges have also been a research focus. There are some key issues, such as limited accessibility, weak technical support, insufficient training, and gender differences in ICT use. The use of technology develops learner autonomy, motivation, and student-centered learning (Singh, 2019). ICT also motivates students and supports active participation in language learning.

Although existing studies indicate that ICT positively impacts language learning by increasing student motivation, enhancing participation, and improving learning outcomes, they primarily focus on school-level education, teacher experiences, or measurable learning outcomes. These studies also identify challenges such as infrastructure gaps, unequal access, insufficient teacher training, and underutilization of available ICT tools. However, the gap between ICT policy and actual classroom practice in higher education remains underexplored in Nepal. Few studies have specifically investigated how university teachers perceive and implement ICT in their teaching, particularly at Tribhuvan University-affiliated campuses. This lack of research on higher education contexts highlights a critical need to examine teachers' attitudes, practices, and the barriers they face, which the present study seeks to address.

Methods and Materials

As the qualitative researchers, we employed narrative inquiry as a research design, guided by the interpretive paradigm. As suggested by Wells (2011), the narratives of five university teachers and their lived experiences supported us in constructing knowledge regarding the policy and practice of ICT-integrated teaching in ELT classrooms in the five campuses in the Kaski district. It offers valuable insights into the complexity of human lives, cultures, and behaviour. To explore the ICT-integrated teaching practices in ELT classrooms based on ICT policy in Nepal's higher education through teachers' stories and lived experiences, five English language teachers teaching at five various campuses were selected purposively for the study; however, the total university English language teachers were the population.

Multiple modes of data collection were used to gather rich information and to make the information more reliable and valid. The semi-structured interviews with the teachers, based on the interview guidelines and their classroom observation, supported us in exploring the reality. After taking informed consent from the campuses and teachers, the first author observed their classes and had frequent talks about their experiences and practices of implementing ICT in ELT classrooms. After collecting the information, it was analyzed thematically following Braun and Clarke's (2021) steps of thematic analysis for qualitative data. After exploring the results of the study, we interpreted them by comparing their features with those of previous research works. To assure participants' confidentiality and anonymity, we have used pseudonyms.

Results and Discussion

After conducting interviews with teachers, the findings are organized under five specific themes. These themes provide a framework for analyzing the data, highlighting key insights, recurring patterns, and the teachers' perceptions and experiences with the subject.

Teachers' Perceptions of ICT-Integrated Learning

Teachers involved in the study reported that ICT supports them in learning resource management, engages students in interactive learning activities, and encourages them to perform various language-related activities. Many teachers shared their experiences of how ICT-integrated teaching enhanced teachers' and students' learning, resulting in high student learning outcomes in English. For example,

Integration of ICT in the ELT classroom is essential for language teachers. It makes teaching-learning more interactive and interesting. I think ICT attracts many students towards participating in various tasks in classrooms. In my observation, students have performed better results after teaching them to integrate ICT. (Babita from Annapurna Campus)

Babita's remarks indicate that ICT integration in the ELT classroom contributes as a transformative tool in improving English language learning by motivating learners in various interactive activities. When students engage in learning language skills with the support of ICT, they improve their performance. Their perspectives align with global evidence showing that ICT enriches instruction by promoting learner engagement and creating more dynamic, student-centered environments (Nurhidayat et al., 2024). Teachers' belief in ICT as a transformative approach in language learning highlights the need for technology-supported ELT pedagogy. Along with language skills and forms through ICT-supported pedagogy, students improved their cognitive skills (Chan, 2023). However, effective

implementation of ICT requires professional development programmes focusing on ICT, institutional support, and policy formulation in Nepal's higher education.

Despite a significant role of ICT in language development, some teachers raised a serious concern, including making students passive and increasing dependency on ICT, which discourages them from creativity and problem-solving skills. For example, Sunil from Prithvi campus expressed,

I think using ICT makes students more dependent on technology, which can slow down their learning speed. Delivering lessons using ICT, such as multimedia projectors, is very superficial. Not all students have ICT support at home, which can demoralize them in learning. For teachers, it is an extra burden.

Teachers raised some critical concerns regarding the use of ICT in the ELT classroom. Although the majority of their voices are in support of ICT-integrated pedagogy, their concern is the over-reliance on ICT, which can spoil their creativity, critical thinking, and active participation. Furthermore, it can divide the students because they are from diverse economic backgrounds, and the teachers with little ICT knowledge are demotivated towards ICT. While ICT has become a foundational element of contemporary education, complementing the traditional triad of teacher–student–materials (Abedi et al., 2024), its effectiveness ultimately depends on teachers' digital pedagogy, access to resources, and institutional support. It highlights the effective implementation of ICT because, without technical and pedagogical support to teachers, ICT is unable to transform their learning.

ICT Practices in ELT Classrooms

Teachers involved in the study reported that they use ICT tools such as laptops, mobiles, and iPods in the language classrooms. Moreover, the Internet, e-books, and online dictionaries also support them in teaching and assessing learners. However, the frequency of using them is different from one institution to another. Teachers can integrate ICT in lesson planning, material development, and classroom interaction. For instance, Ramesh from Adarsha campus expressed,

I employ ICT tools, such as a laptop, iPad, mobile, and projector while teaching the English language, which help us to make our class more interesting and interactive. I also use ICT tools to prepare teaching materials, to plan lessons, and to assess students. These tools and resources help to engage the learners through various tasks and activities.

Teachers' remarks indicate the use of ICT tools as supplementary materials support them in planning lessons, assessing students, preparing their lessons, and engaging students in language tasks and activities. For them, ICT is a supporting tool

to draw their students' attention and encourage them in learning. Their practices align with Yadav (2023), who found that ICT tools created an effective learning environment by motivating students and supporting them for formative assessment. However, the efficacy of using these technologies in the education process heavily relies on the teachers' expertise in how to use them.

All teachers are unable to use ICT in the language classroom. Urban and trained teachers use them frequently, while new teachers from remote areas do not use them frequently. Students in Urban areas have easier access to ICT, whereas students studying in remote areas have hardly any access to technology. This disparity in access contributes digital divide in Nepal. In this context, Prem from the Mahendra campus explained,

I do not use ICT in my class for various reasons. First, I do not have enough ideas, support, and motivation regarding it. We do not have digital infrastructures, such as projectors and IWB, in our classrooms. Instead, I depend on textbooks and other available resources while teaching. Second, it needs more time for preparation. However, it is very difficult to prepare 6 to 8 periods a day by making slides and videos on computers.

Prem explained the reasons for not using ICT due to his individual, institutional, and structural barriers. The lack of knowledge and skills to use ICT effectively indicates the low-level pedagogical and technical readiness of teachers to adopt modern technology in education. Similarly, the lack of ICT tools reflects the low foundation of the higher education institutions. Furthermore, the high working load of teachers shows the shortage of human resources. All these reasons are evidence to justify the policy-practice gap prevailing in Nepal's higher education regarding the use of ICT. On one hand, the policy recommends ICT in education; on the other hand, the low preparation for ICT implementation ignores the policy. These are consistent with Tondeur et al. (2017), who reported that teachers' ICT adaptation is strongly influenced by their readiness, institutional support, and availability of resources. Empowering teachers with digital literacy, increasing institutional support, and access to technology can bridge the gap between classroom learning and real-world language use, making English learning more meaningful, flexible, and learner-centered.

ICT and Teachers' Professional Development

Besides the teaching and learning process, the adaptation of ICT in ELT enhances teachers' professional knowledge and skills. As English language teachers, they contribute to familiarizing their students with not only language skills, but also the target language culture, the knowledge of which is essential to facilitate their

students. By using ICT, teachers get the chance to complete various professional courses and collaborate with teachers, coursebook writers, and curriculum designers. For example, Rubina said, *"I would not be able to complete my professional course from an international university. I can have direct access with some ELT experts through email now,"* Like Rubina, many teachers have connections with various professional organizations online. They have updated them through their own effort, and ICT has played a supporting role for their professional development, which would be impossible without ICT. Chang et al. (2024) revealed that ICT functions as a catalyst for education innovation, collaboration, and knowledge construction, which enhances teachers' professionalism.

Even in classroom activities, teachers reported that the adaptation of ICT supports them in bringing innovative ideas and skills into their classrooms. Exploring various e-resources, including artificial intelligence (AI), teachers have updated themselves, and it has a positive impact on students' learning. For example, Babita from Annapurna campus reported,

ICT helps the teachers be up to date with recent innovations and new trends in teaching, making the classroom teaching more practical and sustainable. It helps the teachers and students collaborate and interact with each other, fostering students' creativity, logical power, and critical thinking skills. ICT generates motivation, enthusiasm, and readiness, and avoids monotony in teaching and learning activities. It promotes higher-order thinking to evaluate the knowledge and skills.

The findings indicate that ICT adaptation in ELT classrooms provides opportunities for pedagogical practices, enriches the learning environment, and develops pedagogical skills. It reports that through ICT, teachers have access to various innovations, pedagogical enhancements, assessment systems, and professional training without leaving their own place and job. This is consistent with Paudel (2023), who explored that ICT provides teachers with expanded content knowledge, modern pedagogical techniques, and tools for efficient classroom management. However, teachers' readiness, dedication towards professional development, and access to technology are essential.

Challenges in ICT Integration

Although ICT supports teachers and students in ELT classrooms in various ways, this study identified some remarkable challenges, including teachers' skills, institutional support in management, and pedagogical application. The classroom

observation and interviews revealed that teachers lacked confidence due to a lack of ICT skills and ICT-integrated pedagogy. Similarly, the low institutional support and encouragement for ICT adoption also hinder teachers in the effective use of ICT in classrooms. For example, Sunil from Prithvi expressed,

I face several challenges in using ICT in the classrooms. Despite the lack of institutional support and access to ICT, I am not confident in using ICT in my classroom. It discourages me from bringing ICT tools into the classrooms.

Despite their long experiences and expertise in ELT, teachers with low ICT skills face challenges in its effective implementation. Even if there is availability of ICT in classrooms and other teachers use it, they hesitate to use it and feel comfortable with traditional practice. This traditional mindset of teachers, who are never ready to change and adopt new technology, discourages students from using ICT tools. It is because of the lack of confidence. On the other hand, the low access to technology for teachers and students, weak infrastructure, and frequent power cuts also created challenges. Similarly, the disparities in device ownership, connectivity, and digital literacy create unequal learning opportunities (UNESCO, 2020). Thus, the teachers' perspective reinforces findings that effective ICT integration in ELT requires not only improved infrastructure but also targeted professional development, institutional support, and equitable digital access.

Conclusion and Implications

This study explores how ICT-integrated learning has become a transformative pedagogy in ELT to develop students' English language learning. It also supports university teachers in planning their lessons, engaging students in various interactive and collaborative learning activities, and providing authentic learning resources, which enhance their language development. The study also reported that ICT integration in teaching fosters learners' creativity, logical thinking, and higher-order cognitive skills by motivating them towards classroom activities. In fact, the study concludes that ICT has played a significant transformative role in shifting the traditional language teaching approach into a learner-centered, activity-based, and problem-solving learning. Furthermore, it supports teachers' sustainable professional development, and the common ICT technology that most of the teachers use, including internet-based technologies, such as laptops, iPods, smart boards, and some learning management systems and social media. computers, smart board. However, teachers encounter multiple challenges, such as limited access due to low internet connectivity, poor infrastructure at schools and homes, and a lack of institutional support to empower them with ICT technology and ICT pedagogy. To navigate these challenges, the study suggests that teachers' professional development should focus

on ICT pedagogy and ICT technology and infrastructure support that can bridge the gap between ICT policy and classroom practice.

The study has practical implications for the ICT policy and its effective implementation in higher education in Nepal because it has highlighted the positive insights of ICT-integrated learning in ELT classrooms. Similarly, policymakers can apply the findings to formulate new policies, understanding university teachers' perspectives on ICT in ELT, focusing on pedagogical benefits and practical challenges. It offers a foundation for future studies, including mixed-method research, to explore comprehensive strategies for effective ICT integration in English language teaching.

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