

# ICT Integration in Low-resourced English Classrooms in Nepal

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## Abstract

*Integrating Information and Communication Technology (ICT) in English Language Teaching (ELT) at the secondary level in Nepal presents a unique set of challenges and opportunities. While infrastructure limitations are significant, a strategic approach focused on mobile technology, offline resources, and pedagogical shifts can significantly enhance student engagement and the development of communicative competence. This paper explores the current situation, key challenges, and practical, low-cost possibilities of ICT integration in Nepalese secondary ELT classrooms. The researcher used a questionnaire and received data from different teachers across the country, and drew findings after analyzing them. The study identified various classroom practices using easily available ICT tools and offers ways of mitigating the solutions of digital divide, which are transferable to low-resource classroom contexts. The study reveals a picture of pragmatic optimism as Nepali English teachers overwhelmingly perceive ICT as valuable for making ELT more engaging and relevant, and enable a basic level of integration where smartphones, a few laptops and multi-media projectors are available.*

**Keywords:** paradigm shift, personalized learning, operating skills, digital literacy, digital divide.

## Introduction

Teaching is the structured and deliberate process of imparting knowledge, skills, and values from an instructor to a learner. It involves the systematic planning, presentation of information, guided instruction, and explicit explanation of concepts. The teacher performs as the primary expert and authority in the classroom. The focus is often on a prescribed curriculum, with the teacher directing the learning process and ensuring students achieve specific, pre-determined learning outcomes through methods like lecturing, demonstration, and practice. Gage (1963), who focuses on the purposeful and influential nature of teaching, defines teaching as an act of changing the behavior of others. For Hattie (2012), teaching should impact on learners' outcomes. He believes effective teaching as an explicit, visible process "where teachers become learners of their own teaching and when students become their own teachers" (British Council, 2016). These definitions emphasize that the role of teaching has been shifted from a traditional jug-mug model based teacher-centered to a more participatory student-centered approach.

With the shifting paradigm of education, teaching is taken as a process of facilitating learning rather than transmitting knowledge. Facilitation is a student-centered approach where the teacher creates conditions and opportunities for students to discover and practice knowledge autonomously and collaboratively. Sir Ken Robinson, an internationally well-known educationist, argues for a fundamental paradigm shift in education and proposes that the role of education is not to manufacture students but to create the conditions for their natural talents to grow. He calls for a system that values diversity, curiosity, and creativity over conformity (Robinson, 2015).

Although both teaching and facilitating aim to promote learning, they follow different paradigms of education. For instance, teaching mainly implies a more structured, teacher-led process of transmitting and ensuring correct application of knowledge, whereas facilitating refers to a more guided, student-centered process of creating conditions for learners to discover, construct, and apply knowledge themselves.

English Language Teaching (ELT) is concerned with the pedagogy and andragogy of the English language to non-native speakers. It encompasses a wide spectrum of contexts, from English as a Second Language (ESL) in Anglophone societies to English as a Foreign Language (EFL) in countries where English is not a primary medium of communication (Richards & Schmidt, 2010). Effective ELT practice involves the informed application of linguistic theories, language acquisition research, and methodological principles to design curricula, implement teaching strategies, and assess learner proficiency, all while navigating the complex sociopolitical dimensions of English as a global lingua franca (Crystal, 2003).

Facilitating ELT is a dynamic and responsive approach to language teaching. It requires the teacher to be less of an instructor and more of an enabler, creating a rich learning environment where students are motivated to use English for genuine communication. This approach is strongly supported by modern theories of language acquisition that prioritize meaningful interaction, learner autonomy, and psychological safety. Facilitation often involves learning theories of humanistic psychology (Rogers, 1969), communicative language teaching (Savignone, 1991), affective filter hypothesis (Krashen, 1982), learner-centered education (Nunan, 1988), and experiential learning (Kolb, 1984).

An effective teacher doesn't prescribe teaching or facilitation as the only effective way but knows when to teach and when to facilitate, and selects activities accordingly. For instance, when the content is newer or a complex idea, the teacher teaches; and leads students at stages like presentation, practice and production. If the goal is to develop critical thinking, problem-solving, and collaboration, the teacher chooses facilitation strategies like elicitation, noticing, and debates, which enrich communication and generate ideas independently. Harmer (2015) says the modern teacher is a facilitator, controller, assessor, prompter, participant, tutor, and resource depending on the needs. The skill required in choosing the right role for the right purpose.

According to the data of the Central Bureau of Statistics (CBS) 2021, 73 percent of households of Nepal have smartphones and 56 percent use the internet but only 15 percent of

people have a computer/laptop. Unfortunately, these ICT tools are mainly used for social media and personal communication. Nowadays, teachers have been using ICT for some basic activities like ppt slides presentation, YouTube video display and reference to a few links for further studies. Some teachers are using Google Classrooms, messenger groups, email and downloading materials from websites. Having observed this kind of low-resource status of ICT in English classrooms, the writer is motivated to identify how the teachers of such status are embedding digital skills in their classrooms, explore, and suggest possible strategies to embed ICT and facilitate ELT more effectively in the available context. Therefore, this study was carried out hoping that this would motivate the readers to use available gadgets and skills for learning English with the support of teachers and independently by the students

## Literature Review

With the rapid advancement of information and communication technology (ICT), ELT has been influenced in many ways. Generally, ICT in ELT involves using digital tools and resources to improve the teaching and learning of English. It's not just about using a computer in the classroom; it's about integrating a variety of technologies to create more dynamic, interactive, and effective learning experiences. ICT has fundamentally changed teaching methods, moving the classroom from a traditional teacher-centered setting to a lively, student-centered learning environment. It supports this transition by offering access to authentic materials, such as online news and videos, which expose learners to real-world language use and different cultures (Warschauer & Healey, 1998). Additionally, interactive tools—from collaborative platforms like Google Docs to language learning apps and virtual classrooms—enhance communicative skills and learner independence by enabling meaningful interaction and tailored learning paths (Dudeney & Hockly, 2007). However, the limited resources, connectivity, and human capacity can negatively impact students who lack access or skills in ICT. As a result, educators must be highly adaptable, creative, and strategic to maximize ICT's potential despite significant constraints.

Many of the research studies (Awasthi 2018, Bhatta 2019, Pandey 2020, Paudel 2021) acknowledge the potential benefits of ICT and highlight that it can be a powerful tool for student-centered, communicative language teaching, moving away from the traditional lecture-based (banking) method. However, they also identify the barriers which are not just technological but infrastructural (electricity, internet), institutional (lack of policy, budget), and human (teachers' digital literacy and pedagogical training). Similarly, the studies (Kafle and Mishra 2022) worry about the widening gap due to digital divide which has been created by the contrast between the institutions with and without ICT equipment, internet, electricity and other infra-structures, and human resources to operate them. The studies have recommended integrating ICT in pedagogy. They want training programs to include TPACK (technological, pedagogical and content knowledge).

The government agencies say that they are committed to integrating ICT in education and aim for digital Nepal (National Education Policy 2019 and the School Education Sector Plan

2022-2032). However, limited national budget, difficult geography, and competing priorities make large-scale, equitable implementation extremely difficult. Projects are often donor-dependent and pilot-based. Nepal is also known as a late adopter of techniques like M-learning, blended learning, flipped learning etc., which were highly popular in and after COVID-19. Smartphones as the primary tool and messenger or WhatsApp as a major tool for teacher-student communication, also have a lethargic impact due to low bandwidth and a challenging ICT ecosystem.

## Methodology

This article employs descriptive survey research, which investigated the practices, perceptions, and challenges of ELT teachers in Nepal regarding the use of ICT. The target population for this study was 97 ELT teachers working in both public and private secondary schools (+2 level) and campuses across Nepal. The questionnaire has four sections. The first section is the demographic information of the respondents. The second section assesses the access and availability of ICT resources through multiple-choice and Likert-scale questions. The third section analyses ICT Integration practices and perceptions using Likert-scale. The final section of the questionnaire covers challenges and support needs, and exploits Likert-scale and open-ended questions. The result summary drawn from the responses is followed by quantitative and qualitative descriptions providing a snapshot of the current state of ICT integration in Nepali ELT classrooms. The researcher clearly prioritized data privacy and confidentiality, ethical considerations, and aimed to contribute positively to the learning environment.

## Results and Discussion

The study gathered both quantitative and qualitative data and the findings are summarized under different sub-headings as below.

### Access and skills

All the teachers have smartphones and free internet in school office and staff room. All the schools have at least one computer with an internet connection and a printer. More than one-third (36.3%) of urban schools have a computer lab. Slightly more than half of the computers are not functioning. Only a few teachers (11.5%) have their own personal laptop. However, some teachers have basic operation skills like creating folders and files, typing in a normal speed, searching resources and downloading them, searching videos, downloading and displaying through multimedia, making question papers themselves and printing, emailing and operating messenger and WhatsApp groups. Very few teachers (7.7%) can conduct online classes through conference platforms like Zoom, Google Meet, Microsoft Teams and manage learning management systems like Google Classrooms, and practice web tools related to their subjects.

### Benefits of using ICT in the classroom

The teachers' perceived beliefs and benefits of using ICT in the English language classroom were collected using Likert questions, and the obtained results are summarized as below.

**Table No. 1:***Benefits of using ICT in English language teaching classrooms*

S. N.	Perceived benefits	Strongly agree	Agree	Neutral	Disagree
1	Lessons are motivating and engaging.	88.4	7.6	3.8	0
2.	Access to updated materials.	69.2	23	7.6	0
3	Complex ideas are also explained.	50	30.7	19.2	0
4	Supports differentiated instruction.	57.7	26.9	15.3	0

According to the responses, as summarized in Table No. 1, most of the teachers strongly agree with the benefits of using ICT in the classroom. Most of them (88.4%) believe that ICT-aided teaching supports better motivation and more engaging classes. "When the videos are displayed in the multimedia or a song is played in the mobile phone instantly captures students' attention. *They feel as if they are in the real world and not in the textbook*", said a Grade 9 English teacher. The next teacher added that she often downloads unseen passages from webpages like National Geography and gives tests to test comprehension.

### Perception of using ICT

The teachers worry about using ICT. The following table shows how they perceive using ICT.

**Table No. 2:***Perceptions of using ICT in English language teaching classrooms*

S. N.	Perceptions	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Finding and preparing digital materials is too time-consuming	0	30.7	38.4	30.7	0
2.	I worry that technical problems will disrupt my lesson.	7.6	19.2	23	42.3	7.6
3	The students who don't have the gadgets at home are not much interested in ICT aided classes.	7.6	38.4	7.6	26.9	23
4	The existing school exams do not encourage ICT use.	15.3	46.1	7.6	19.2	11.5

The respondents are divided into various opinions. For instance, a significant number of teachers (38.4%) seem neutral regarding the time-consuming nature of preparing ICT-based materials. But the same number of teachers agree and disagree in this regard. Likewise, a big number of teachers (42.3%) disagree with the saying that the technical problems will disrupt their classes. Interestingly, the current exams do not encourage ICT use as almost 60% of teachers agree that the existing assessment system is not ICT-friendly.

### Challenges of using ICT in the English teaching classroom

All the teachers mentioned almost similar list of challenges of using ICT in the English language teaching classroom. Everyone said that they are facing challenges of ICT-related infrastructure. Generally, there is an electricity disturbance and low-speed internet, where it is

available. Most of the teachers (88.4%) have neither access nor the skills to operate computers. Two-thirds (65.3%) of teachers are unable to operate a computer. Most of them (88.4%) have not received any training of computer and digital skills. The schools do not have internet in the teaching classrooms. A few classrooms have fixed multimedia and smart boards that are functioning well. However, only half of the teachers can operate them. Some teachers think displaying ppt slides is using ICT. A teacher shared his experience when he was confused about when and why to use ICT.

*The multi-media projector was installed in a classroom. The head teacher asked me to use the projector. The students were also excited to study in the newly set-up multimedia room. The lesson was on dictating writing. I opened my laptop and displayed the answer on the screen. The students copied the answer. I just sat on the bench and continued scrolling the cursor.*

The teachers also complain about the school administration for not allowing students to bring mobiles in the classroom. Moreover, they can't practice ICT since the students are unable to practice ICT even at home.

### **Teachers' Perspectives**

Nepalese classrooms are transforming to the digital age from the analog age in a very slow rate. The students are assigned homework and the class begins with the teacher checking homework. One of the respondents recalled his teaching experience.

*The topic for teaching was making PowerPoint (ppt.) slides. I first defined ppt orally. Then I also talked about the benefits of teaching, showing ppt slides. I displayed ppt slides I had prepared in my laptop. I dictated them to note down the steps of making ppt slides. Then I took the students to the computer lab and assigned them to make ppt slides in the regular groups. When they began opening computers, the bell rang. I put a query to myself why the students had no time for making ppt slides. That day I realized I had to upgrade myself to the digital age. Had I taken them to the lab, demonstrated the procedures and assigned them to make ppt, they could certainly do the task.*

Despite the challenges of access to ICT tools and lower operational proficiency, almost all the teachers (92.4%) think "ICT makes lessons more engaging, visual, and interactive." They opine that tools like PowerPoint, videos, online quizzes, and language apps help break the monotony of textbook-based teaching; provide authentic listening materials and expose students to global English accents; create fun learning environment and help students learn in their own speed.

Most of the teachers (85.7%) want to use ICT, but how? There are often only a few computers, in a 'sophisticated' school, one computer lab for the whole school, the internet is slow/unreliable and mostly available in the office but not in the classrooms, and electricity cuts are frequent. A maximum of teachers (88.5%) lack proper training and feel anxious about using technology.

All the respondents mentioned frankly that they often use a personal smartphone to play audio, show images, or use a dictionary. They download materials when they have Wi-Fi and use

them offline in class. Messenger group is their primary ICT tool for sharing assignments, materials and notices for secondary level students. They sometimes email or share via a pen drive. Only a few teachers (23.1%) use Google Classroom for sharing resources like notes, videos, test items and notices. However, they think the students mostly depend upon paper-based documents for these tasks.

The teachers show serious concerns on over-reliance on technology, making distance, and digital divide. All the teachers say that the mobile phones are prohibited to their students and opined that if they are allowed to take mobile phones in school, this could ruin their students because they worry the students will certainly get involved in other things than academics. Most of the teachers (80.8%) believed that it can kill students' creativity and also spoil handwriting and spelling. Also, it can widen the gap between urban 'have' schools and rural 'have-not' schools.

Despite the challenging thoughts, almost all the teachers (88.4%) found ICT beneficial for making classes more engaging and interactive. A teacher said, "We believe and wish we had the necessary ICT infrastructure and operational skills. Sometimes I feel guilty of not being able to integrate digital skills in the classroom, and want to do that when I see others doing that."

### **Students' Perspectives**

When the students, of the same institutions where the teachers completed questionnaires, were asked to express their observations, they said that the classes with videos, music, or presentations are more fun and easier to remember. They can learn pronunciation from YouTube. Using computers or projectors feels modern ways of teaching.

However, only 8.4% teachers teach using a smart digital board, and a few teachers (20.8%) teach using a multi-media projector. The other teachers still depend upon textbook and whiteboard practices. Even in urban areas, only a quarter of teachers (25.2%) have basic computer operating skills like typing, making files, downloading, emailing, searching resources in Google or YouTube, and displaying through a multimedia projector. Most of the teachers who can't use ICT reported that they had frequently felt a pain of guilt for not using the latest piece of technology. What stops them from embedding digital literacy in the classrooms? The immediate answer was access to the ICT gadgets and the required skills to operate them.

The students of low-resourced institutions have frustrations due to the inequality between ICT-equipped and non-ICT-equipped institutions. They feel unfair and worry about the skill and learning gap among them.. One student who had recently transferred to the current school said, "We could clearly understand when the teacher displayed the content through multimedia. Although teachers teach well in this school, I remember my previous school for the ICT-aided teaching."

### **Low-resourced classrooms**

The respondents have revealed that almost a quarter of teachers have the possibility of ICT-aided classes. Most of the classes have neither electricity nor internet. The teachers have

mobile phones. The teachers are allowed to carry mobile phones in the classroom for teaching purposes. Therefore, some teachers download videos from YouTube and show in the classroom, moving bench to bench. Some teachers download, print and use the worksheets in the classroom. Sometimes the teachers assign students to visit the websites at home and do the assignment. Some large class teachers have managed routine of computer lab work in turn.

## Conclusion

In the context of a low-resource English class in Nepal, the integration of Information and Communication Technology (ICT) is a challenging endeavor shaped by profound infrastructural constraints, including unpredictable power cuts, limited internet connectivity, and a scarcity of digital devices, often requiring educators to rely on a single shared computer or a teacher's personal smartphone. Despite these challenges, ICT is often pursued as a strategic tool to bridge educational gaps, providing access to digital English-language resources, authentic audio-visual materials, and interactive exercises. Successful implementation typically depends on highly adaptive and innovative practices, such as using offline applications, downloaded videos, solar-powered batteries, and USB drives. This context transforms ICT from a mere technological add-on into a carefully negotiated effort to expand educational horizons within significant limitations.

The result of this study displays a picture of pragmatic optimism. Nepali English teachers in low-resource contexts overwhelmingly perceive ICT as valuable for making ELT more engaging and relevant. However, their practices are severely limited due to infrastructure and capacity barriers, leading to infrequent, teacher-centric, and supplemental use of ICT, and mostly hesitating to exploit its benefits. Their personal devices, especially smartphones, serve as a commonly available gadget, enabling a basic level of integration. A significant gap exists between their positive pedagogical beliefs and their ability to implement student-centered, interactive ICT-based learning due to a low-resourced workplace and limited professional development opportunities. In challenging low-resource settings like Nepal, ICT integration can succeed by prioritizing suitable technology and investing in teacher empowerment.

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