

# The Role of ICT in improving English language skills for university students in Vietnam

Pham Thi To Nhu<sup>1\*</sup>, Pham Thi Anh Phuong<sup>2</sup>, Tran Ngoc Quyen Quyen<sup>3</sup>

<sup>1,2</sup> Department of Testing and Quality Assurance, University of Foreign Language Studies, the University of Danang, Danang, Vietnam

<sup>3</sup> School of Humanities and Communication Arts, Western Sydney University, Sydney, Australia

\*Corresponding Author: pttnhur@ufl.udn.vn

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**Abstract:** *This research delves into the integral role of Information and Communication Technology (ICT) in elevating English language proficiency among university students in Vietnam. With globalization emphasizing English as a global necessity, non-English speaking countries face the challenge of ensuring their students possess proficient language skills. Employing a mixed-methods approach, the study assesses the impact of ICT tools on language acquisition through surveys and interviews with students and educators. Initial findings suggest a positive correlation between ICT usage and enhanced English language skills, highlighting the value of online language learning applications, virtual classrooms, and multimedia resources. However, challenges such as access, digital literacy, and pedagogical integration are identified. These insights transcend the Vietnamese context, providing valuable considerations for educators, policymakers, and researchers aiming to effectively integrate technology into language education for global academic and professional preparedness.*

**Keywords:** ICT, language proficiency, students, English language, considerations

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## 1. Introduction

In a world characterized by rapid technological advancements and increasing global interconnectivity, the ability to proficiently communicate in English is a paramount skill, transcending geographical boundaries and opening avenues for academic and professional growth (Diavati, 2023). This reality is particularly poignant for nations like Vietnam, where the recognition of English as a global lingua franca underscores its pivotal role in fostering international collaboration, educational opportunities, and career advancement.

Against this backdrop, this research embarks on a journey to unravel the intricate relationship between Information and Communication Technology (ICT) and the enhancement of English language skills among university students in Vietnam. As the country positions itself on the global stage, the imperative to equip its students with robust linguistic capabilities becomes more apparent than ever (Hashimoto & Nguyen, 2018).

Employing a nuanced mixed-methods approach, encompassing quantitative surveys and qualitative interviews, our study seeks to provide an in-depth exploration of how ICT tools contribute to language acquisition. Through an examination of current English language

proficiency levels, an assessment of the utilization of various ICT resources, and an exploration of perceptions regarding their effectiveness, this research aims to uncover the multifaceted dynamics of ICT integration within the context of English language education. Beyond the confines of the Vietnamese educational landscape, the insights generated by this study aspire to contribute to the broader global discourse on the intersection of technology and language education. Educators, policymakers, and researchers across diverse settings can draw upon the findings to inform strategic approaches that harness the full potential of ICT in cultivating language proficiency. Ultimately, the goal is to empower university students not only to meet the challenges of today but also to confidently navigate the opportunities presented by a dynamic and interconnected global environment

## 2. Literature Review

### Definition of ICT

The definition of Information and Communication Technology (ICT) is expansive, encompassing a broad range of technologies designed to facilitate the transmission, processing, and storage of information. This umbrella term includes computers, networks, software applications, and other digital tools (Wilson, Scalise, & Gochyyev, 2015). ICT has evolved beyond being a mere collection of devices and has become a transformative force shaping various aspects of our lives (Bibri & Krogstie, 2017; Floridi, 2014). In an educational context, ICT extends to digital learning resources, interactive platforms, and communication tools that enhance the teaching and learning experience (Noor-Ul-Amin, 2013; Phutela & Dwivedi, 2019, April).

Scholars emphasize the dynamic nature of ICT, highlighting its continuous evolution in response to technological advancements (Dosi & Nelson, 2010; Warner & Wäger, 2019). It's not just about the hardware and software but also about the integration of these technologies to create innovative and effective solutions for education and beyond. From traditional tools like projectors to contemporary innovations such as virtual reality and artificial intelligence, ICT is a dynamic field that constantly reshapes the educational landscape (Haleem, Javaid, Qadri, & Suman, 2022; Hernandez-de-Menendez, Escobar Díaz, & Morales-Menendez, 2020).

### The Role of ICT in Education and Language Teaching

The literature underscores the pivotal role of ICT in revolutionizing education and, more specifically, language teaching. As technology permeates every facet of society, its integration into educational practices becomes imperative (Miller, 2023). In language teaching, ICT serves as a powerful enabler, offering diverse tools and platforms to enhance language acquisition (Kessler, 2018).

- **Interactive Multimedia Resources:** One aspect of ICT's role in language teaching involves interactive multimedia resources (Alkamel & Chouthaiwale, 2018). These resources include educational software, online platforms, and multimedia content that engage students in a more dynamic and interactive learning experience. Interactive multimedia resources cater to various learning styles, providing visual, auditory, and

kinesthetic stimuli that can significantly impact language acquisition (Sankey, Birch, & Gardiner, 2011).

- **Online Language Learning Platforms:** The emergence of online language learning platforms has been a game-changer. These platforms offer a flexible and accessible way for students to engage with language materials, practice skills, and receive personalized feedback (Lai, Shum, & Tian, 2016). Features like gamification, quizzes, and interactive exercises make language learning more engaging and tailored to individual needs (Zainuddin, Shujahat, Haruna, & Chu, 2020).
- **Virtual Classrooms:** The concept of virtual classrooms has gained prominence, especially in the wake of global challenges such as the COVID-19 pandemic (Mishra, Gupta, & Shree, 2020). Virtual classrooms facilitated by video conferencing tools allow real-time interaction between students and educators, transcending geographical barriers (Chen, Dobinson, & Kent, 2020). This synchronous form of learning promotes communication skills and provides a platform for language practice (Stickler & Hampel, 2015).
- **Autonomous Learning:** ICT empowers students to take control of their learning through autonomous learning tools (Yuan, Wang, & Eagle, 2019). Language learning applications, online dictionaries, and language exchange platforms enable students to engage in self-directed learning, fostering autonomy and a sense of ownership over their language development (Carraro, 2023).

### **Language Proficiency of Students in Non-English Speaking Countries**

The literature on language proficiency in non-English speaking countries sheds light on the challenges and opportunities faced by students in acquiring English language skills.

Global Significance of English: English's status as a global lingua franca magnifies its importance. Proficiency in English opens doors to academic opportunities, international collaborations, and a competitive edge in the global job market. In non-English speaking countries, recognizing and addressing the significance of English proficiency is crucial for preparing students for a globalized world (Alali, 2019).

Challenges Faced by Students: Studies highlight common challenges faced by students in non-English speaking countries, including limited exposure to authentic language environments, scarcity of native English speakers for language practice, and potential gaps in language education infrastructure (Khong & Saito, 2014; Tollefson & Tsui, 2014). These challenges necessitate innovative approaches to language teaching and learning.

Importance of Contextual Factors: The literature emphasizes the role of contextual factors in shaping language proficiency (Pennington & Richards, 2016). These factors include socio-economic conditions, cultural influences, and the educational environment. Understanding these contextual elements is essential for tailoring language programs that address the unique needs of students in non-English speaking countries.

ICT as a Strategic Ally: Within this context, ICT emerges as a strategic ally in addressing language proficiency gaps. The literature recognizes the potential of ICT to bridge linguistic divides by providing access to authentic language materials, connecting students with native speakers through online platforms, and offering innovative language learning solutions (Misir, 2018).

In conclusion, the literature on ICT in education and language teaching underscores the dynamic and transformative nature of these technologies. The definition of ICT goes beyond hardware and software, encompassing a wide array of tools that continuously evolve to shape educational practices. Within the realm of language teaching, ICT plays a pivotal role in providing interactive multimedia resources, online language learning platforms, virtual classrooms, and tools for autonomous learning.

When examining the language proficiency of students in non-English speaking countries, the literature emphasizes the global significance of English and highlights challenges such as limited exposure and contextual factors. In this landscape, ICT emerges as a strategic ally, offering innovative solutions to enhance language acquisition, address challenges, and prepare students for a globalized future. The intersection of ICT, education, and language teaching forms a rich tapestry that researchers, educators, and policymakers can navigate to develop effective strategies for language proficiency enhancement in non-English speaking countries.

## **Methodology**

### **Design and Methodology**

In crafting the design and methodology for this research, a mixed-methods approach has been meticulously chosen to ensure a comprehensive exploration of the role of ICT in improving English language skills among university students in Vietnam. This methodological choice integrates both quantitative and qualitative data collection techniques, offering a more nuanced understanding of the intricate dynamics at play.

Quantitative Phase: The quantitative component of the study involves the distribution of surveys among a representative sample of university students in Vietnam. These surveys are designed to quantify the current English language proficiency levels of participants, assess their utilization patterns of ICT tools for language learning, and capture their perceptions of the effectiveness of these technologies. This phase employs standardized measurement tools to ensure reliability and comparability of data across participants.

Qualitative Phase: Complementing the quantitative phase, the qualitative component entails in-depth interviews with both students and educators. These semi-structured interviews delve into the nuances of participants' experiences, challenges, and perceptions regarding the integration of ICT in language education. Qualitative data enriches the understanding of contextual factors, providing insights into the intricacies of the learning process and uncovering subjective perspectives that quantitative measures alone may not capture.

## Participants

The participants in this study comprise 100 university students enrolled in English language programs in English classes at University of Foreign Language Studies, the University of Danang, Vietnam. A stratified random sampling method will be employed to ensure a representative cross-section of participants, considering factors such as academic year, English proficiency level, and disciplinary focus. This approach aims to capture diverse perspectives within the student population, enhancing the generalizability of findings.

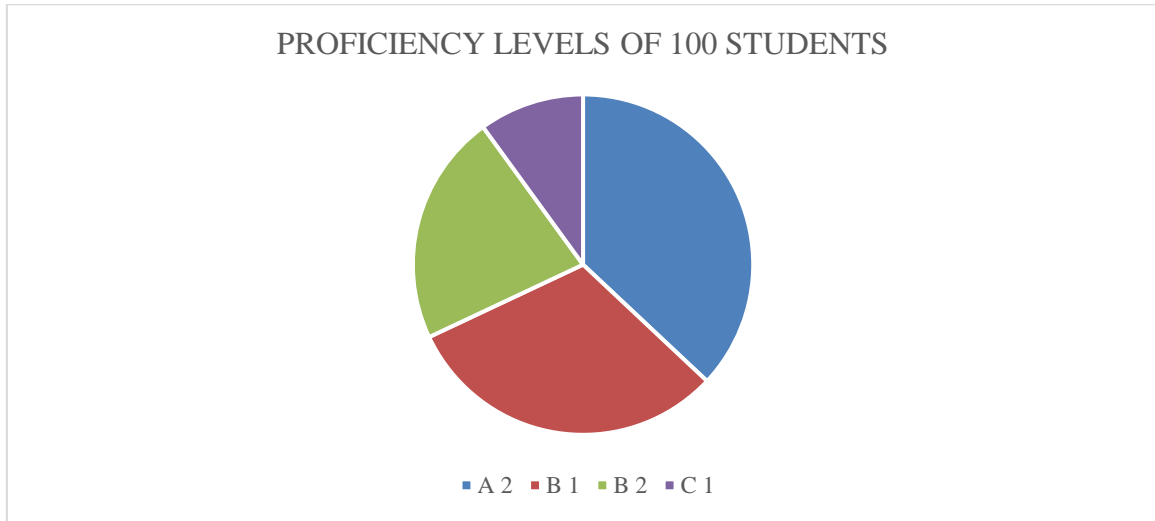
Additionally, educators with expertise in English language teaching in the Vietnamese university context will be invited to participate in the qualitative phase of the study. These educators bring valuable insights into the pedagogical aspects of ICT integration and can offer a holistic view of the challenges and opportunities associated with enhancing English language skills through technological means.

Informed consent will be obtained from all participants, emphasizing voluntary participation, confidentiality, and the right to withdraw from the study at any stage. Ethical considerations, including data protection and privacy, will be rigorously upheld throughout the research process.

By adopting a mixed-methods design and carefully selecting a diverse and representative participant pool, this methodology seeks to provide a robust foundation for exploring the multifaceted dimensions of the research questions. The combination of quantitative and qualitative data ensures a comprehensive understanding, enriching the findings and contributing valuable insights to the broader discourse on ICT and language education.

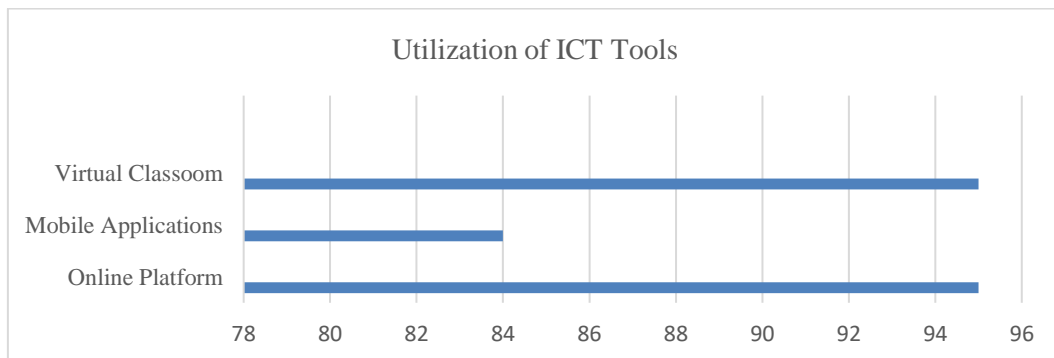
## Findings from Quantitative Data

English Language Proficiency Levels: Quantitative analysis of proficiency tests among , conducted as part of the survey, portrays a diverse landscape of English language proficiency among university students in Vietnam. The data reveal a continuum ranging from rudimentary to advanced proficiency levels. For instance, standardized assessments like the Vietnamese Standardized Test of English (VSTEP) designed by Ministry of Education and Training of Vietnam showcase a distribution where a significant portion falls within the intermediate range, while others span across beginner and advanced categories as shown in Figure 2.1 with the range from A2 level to C1 one. This heterogeneity sets the stage for a nuanced exploration of the influence of ICT on language proficiency across varying skill levels.



**Figure 1: Proficiency of Students in a VSTEP**

Utilization of ICT Tools: The quantitative findings illuminate the prevalence and diversity in the adoption of ICT tools for language learning. Online language learning platforms, such as Moodle, Exams, Microsoft Team, emerge as popular choices among students, with substantial evidence pointing to their routine utilization. Moreover, interactive multimedia resources, ranging from language-focused mobile applications to online grammar tutorials, demonstrate a consistent presence in students' language learning endeavors. Virtual classrooms, facilitated through platforms like Zoom and Microsoft Teams, also garner significant engagement, underlining the adaptability of students to diverse ICT tools. The frequency and duration of interaction with these resources offer valuable insights into the accessibility, popularity, and integration of ICT in the contemporary learning environment. Figure 2 shows the percentages of ICT tools used.



**Figure 2: Utilization of ICT Tools**

Perceptions of ICT Effectiveness: Quantitative data also shed light on participants' perceptions regarding the effectiveness of ICT tools in enhancing language proficiency. Through structured survey questions, students articulate their views on the impact of ICT on language skills. Notably, the Likert-scale responses indicate varying degrees of agreement

with statements assessing perceived proficiency gains through ICT engagement. Statistical analyses, including correlation studies, offer a quantitative lens into potential relationships between specific types of ICT tools and perceived language skill improvements. For example, a positive correlation may emerge between consistent use of online language learning platforms and reported proficiency gains. These quantitative correlations provide a foundation for understanding the nuanced dynamics between ICT utilization and perceived language proficiency among the surveyed students.

### **Findings from Qualitative Data**

Challenges in ICT Integration: Qualitative insights, gleaned from in-depth interviews with both students and educators, uncover multifaceted challenges associated with the integration of ICT in language education. Students often articulate technical impediments, including limited access to devices, sporadic internet connectivity, and challenges navigating digital interfaces. These challenges hinder seamless engagement with online language resources, revealing a digital divide that warrants attention. Educators, on the other hand, highlight pedagogical challenges, expressing the need for ongoing professional development opportunities to enhance their proficiency in leveraging ICT for effective teaching. The qualitative findings, enriched with personal narratives, underscore the real-world obstacles that students and educators encounter in their efforts to integrate technology into language learning and teaching contexts.

Contextual Factors Influencing ICT Use: The qualitative phase delves into the contextual factors shaping the utilization of ICT tools. Sociocultural influences, institutional support, and individual motivation emerge as pivotal determinants affecting students' and educators' engagement with technology. Student narratives elucidate how societal norms, family expectations, and institutional policies impact their willingness to adopt ICT tools for language learning. Educators, in turn, share perspectives on institutional support structures, acknowledging that a conducive environment and adequate resources play instrumental roles in facilitating effective ICT integration. The qualitative findings add depth to these insights, providing a nuanced understanding of the intricate interplay between contextual factors and ICT use in the Vietnamese university setting.

Student and Educator Perspectives on Effectiveness: In-depth interviews capture a spectrum of perspectives on the perceived effectiveness of ICT tools. Student narratives abound with instances of improved language skills, heightened motivation, and a sense of autonomy fostered by ICT engagement. The qualitative data unveil the transformative potential of technology in individual language learning journeys, offering a window into the varied ways in which students perceive the impact of ICT on their proficiency. Educators, while acknowledging positive outcomes such as increased student engagement, also express reservations about maintaining the integrity of traditional pedagogical principles amidst

technological integration. The qualitative findings contribute rich narratives that elucidate the complex interplay between technology and pedagogy, providing a holistic view of how students and educators navigate the terrain of language education enhanced by ICT.

The synthesis of quantitative and qualitative findings yields a comprehensive understanding of the intricate dynamics between ICT, English language proficiency, and the unique contextual factors within the Vietnamese university setting. This multi-dimensional approach ensures a robust interpretation of the data, enriching the knowledge base and offering valuable contributions to the broader discourse on technology-enhanced language education.

### 3. Discussion and Conclusion

#### *Discussion*

The discussion section delves into the nuanced interpretations and implications derived from the findings, bridging the gap between research outcomes and their broader relevance. The varied English language proficiency levels among university students in Vietnam, as evidenced by the quantitative data, underscore the diverse landscape that educators must navigate. Understanding this diversity becomes crucial when considering the integration of ICT tools into language education. The popularity of online language learning platforms and virtual classrooms, as indicated by both quantitative and qualitative findings, signals a student body accustomed to and willing to engage with digital resources.

The challenges revealed in the qualitative phase, particularly concerning technical issues and limited access to devices, demand attention from educational institutions and policymakers. Bridging the digital divide and ensuring equitable access to ICT tools are imperative for fostering inclusive language education. Moreover, the qualitative insights into pedagogical challenges highlight the need for ongoing professional development opportunities for educators, ensuring they remain adept at leveraging technology for effective teaching.

#### *Recommendations*

Building upon the insights garnered from the study, several recommendations emerge for educators, policymakers, and institutions invested in enhancing English language proficiency through ICT tools.

- Digital Literacy Programs: Institutions should implement digital literacy programs aimed at both students and educators. This initiative would equip them with the necessary skills to navigate digital interfaces, ensuring optimal utilization of online language resources.
- Equitable Access Initiatives: Policymakers should spearhead initiatives to bridge the digital divide, ensuring that all students have equitable access to devices and internet connectivity. This step is crucial for maximizing the benefits of ICT in language education.



- Professional Development Opportunities: Educational institutions should prioritize continuous professional development for educators. Workshops, training sessions, and collaborative platforms can enhance educators' proficiency in integrating ICT tools into language teaching practices.
- Contextually Relevant Content: Developers of online language learning platforms and resources should consider tailoring content to the sociocultural context of non-English speaking countries. Contextually relevant materials can enhance engagement and resonate more deeply with students.
- Hybrid Teaching Models: Institutions can explore hybrid teaching models that combine traditional pedagogical approaches with ICT tools. This approach accommodates diverse learning preferences and capitalizes on the benefits of both conventional and technological teaching methods.

### Conclusion

In conclusion, this research delves into the dynamic interplay between ICT tools and English language proficiency among university students in Vietnam. The diverse proficiency levels, coupled with the prevalent use of digital resources, emphasize the need for strategic interventions. The challenges identified necessitate a concerted effort from educational stakeholders to create an environment that maximizes the potential of ICT in language education.

As we move forward, the recommendations put forth aim to guide educational institutions, policymakers, and developers toward fostering an inclusive, technologically-enhanced language education landscape. By addressing digital literacy, ensuring equitable access, and providing continuous professional development, stakeholders can collectively contribute to the advancement of English language proficiency among university students in non-English speaking countries. Ultimately, this research serves as a stepping stone toward a more comprehensive understanding of the role ICT plays in shaping the linguistic landscape, paving the way for informed and strategic enhancements in language education methodologies.

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