

Exploring the Readiness of Prospective Teachers to Integrate Language Learning Apps in English Language Teaching

Ujjala Das^{1*}

¹Research Scholar, Department of Education, The English and Foreign Languages University, Hyderabad – 500007

DOI: <https://doi.org/10.36348/sijll.2026.v09i08.005>

| Received: 23.06.2026 | Accepted: 15.08.2026 | Published: 21.08.2026

*Corresponding author: Ujjala Das

Research Scholar, Department of Education, The English and Foreign Languages University, Hyderabad – 500007

Abstract

The integration of technology in education, specifically through the use of language learning applications, is transforming conventional approaches to language instruction. This study examines the readiness of prospective English teachers to incorporate language learning apps into their teaching practices. The present study is descriptive in nature, a purposive sampling technique was used to select the sample of 55 B.Ed. students from Central and State Universities. Using a mixed-methods approach, both quantitative and qualitative data were collected. The quantitative phase involved a questionnaire-based survey assessing readiness, attitudes, and perceived challenges, while the qualitative phase included semi-structured interview questions to explore deeper insights into beliefs and barriers. After the response was collected, descriptive, inferential statistical techniques were used for analysing the data. The responses expressed by the subjects were graphically represented. Findings indicate that while prospective teachers recognize the potential benefits of language learning apps for enhancing student engagement and individualized learning, they also express concerns related to usability, instructional support, and self-efficacy. Variations in readiness were observed based on prior experience with technology and self-reported confidence levels. This research underscores the need for teacher training programmes to address these challenges and support the effective integration of technology in language teaching. The study contributes to understanding how to prepare future teachers better to leverage digital tools in English language teaching.

Keywords: *Language learning apps, prospective teachers, teacher education, English Language Teaching, digital literacy.*

Copyright © 2026 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

1.0 INTRODUCTION

The rapid advancement of digital technologies has significantly transformed the landscape of English language teaching (ELT). Among these innovations, language Learning Apps (LLAs) have emerged as pivotal tools for enhancing learner engagement, personalization, and outcomes. These apps provide a range of interactive features such as gamified lessons, realtime feedback, and adaptive learning pathways, making them highly appealing in contemporary classrooms. Even, compared to a classroom-based paradigm, learners are more in control of their individual progress as they can decide what and when to study (Muckenheimer et. al., 2023). Apps like Duolingo, Babbel, and Rosetta Stone allow students to practice their skills on their mobile devices, and many of these apps use algorithms to personalize the learning experience based on the student's level and progress (Cai, 2017b). However, the integration of such tools into effective teaching practices is far from straightforward. It demands prospective teachers to develop a comprehensive blend of technological,

pedagogical, and content knowledge (TPACK) (Koehler & Mishra, 2009) to align digital resources with language learning objectives. Despite their increasing popularity, the potential of LLAs often remains underutilized in English language classrooms. Factors such as limited familiarity with the apps, inadequate training, and resistance to integrating technology into traditional teaching methods may contribute to this disparity. This study aims to explore the readiness of prospective teachers to integrate LLAs in English language teaching. By examining their familiarity with these tools, attitudes towards technology-enhanced learning, and their TPACK competencies, the research seeks to uncover the enablers and barriers influencing effective integration. Ultimately, this study strives to provide insights for teacher education programmes, language instruction strategies, and educational policy development, bridging the gap between technological innovation and practical application in ELT.

1.1 Significance of the Study

Understanding how to effectively integrate LLAs – such as Duolingo, Babbel, Grammarly, FluentU, HiNative, and BBC Learning English – into English instruction is crucial for modern teacher education. By identifying where prospective teachers excel or struggle with LLAs, this study will enable teacher educators to design targeted training that strengthens technological, pedagogical, and content knowledge (TPACK). Equipping teachers with these skills means they can select high-quality apps that support their pedagogical goals. Empirical evidence demonstrates that mobile and app-based learning environments enhance learners' proficiency across all core language skills when used pedagogically (Burston, 2015; Kukulska-Hulme & Viberg, 2018). A recent review notes that effective app-based teaching “include[s] the use of quality apps to support the teacher's pedagogy” and depends on the readiness of both teachers and students to engage with digital tools (Lim & Toh, 2024). By examining prospective teachers' readiness and ability to employ these tools, this study contributes to more strategic integration of technology into ELT classrooms.

Central to this process is developing teachers' TPACK which provides the conceptual framework that enables teachers to make informed decisions about selecting and integrating technology based on pedagogical intent (Koehler & Mishra, 2009; Chai, Koh, & Tsai, 2013). Equipping prospective teachers with TPACK-based skills ensures that they can purposefully align LLAs with learning objectives for example, using Grammarly to enhance writing accuracy or Duolingo to reinforce grammar and vocabulary practice. Classrooms led by teachers trained in TPACK demonstrate stronger student outcomes and higher engagement, largely due to the more effective use of educational technologies (Chai *et al.*, 2013).

Furthermore, LLAs have been found to boost learner engagement and motivation through features such as gamification, instant feedback, and self-paced progression. Duolingo, for instance, employs points, badges, and level-up systems that sustain student interest and persistence, resulting in greater participation and confidence in language learning (Munday, 2016; Loewen *et al.*, 2019). Similarly, writing-enhancement tools like Grammarly provide immediate feedback that improves learners' writing accuracy and self-editing awareness (O'Neill & Russell, 2019). When teachers are adequately trained to implement such tools effectively, they can transform passive learning into active, student-centered engagement that enhances both motivation and achievement.

Equally important, this study highlights digital equity and inclusivity in ELT. While LLAs have the potential to democratize language learning by providing flexible, on-demand access to resources, disparities in teachers' readiness and digital competence may

reproduce inequities in classroom practice. Teacher preparedness and equitable access to educational technologies are essential to bridge the digital divide and ensure all learners benefit from digital language learning innovations (Reich, Ito, & Selwyn, 2022). By identifying challenges faced by prospective teachers such as limited digital literacy or institutional constraints this research provides insights into how teacher education programmes can design interventions that promote equitable, technology-enhanced learning environments.

In summary, the findings of this study will inform teacher education curricula to strengthen TPACK-oriented preparation, enabling teachers to make informed, contextually appropriate choices about technology integration. Ultimately, by enhancing teachers' readiness to use LLAs, this study supports improved classroom engagement, sustained student motivation, and accelerated language acquisition while simultaneously advancing educational equity in technology-mediated ELT.

1.2 Objectives

The objectives of the study are:

1. To observe the extent the prospective teachers are familiar with LLAs and their features.
2. To examine the attitudes of prospective teachers towards using LLAs in ELT and the factors influencing their readiness to integrate them.
3. To study the challenges faced by the prospective teachers in integrating LLAs in their teaching of the English language.

1.3 Research Questions

1. To what extent are prospective teachers familiar with LLAs and their features, and what are their attitudes towards integrating LLAs in ELT?
2. What factors influence the readiness of prospective teachers to integrate LLAs in ELT, and what challenges do they face in incorporating these tools into their teaching practices?
3. Is there a significant relationship between prospective teachers' TPACK, familiarity with LLAs, attitudes, and their readiness to integrate these tools in ELT?

1.4 Hypotheses

Based on the above objectives, the following hypotheses are formulated.

1. Prospective teachers who demonstrate a higher level of familiarity with LLAs are more likely to exhibit greater readiness to integrate them into ELT.
2. There is no statistically significant difference in the readiness to integrate LLAs between prospective teachers who hold positive attitudes toward LLAs and those who do not.
3. Do specific factors such as prior training, perceived ease of use, institutional support, and

access to digital resources significantly influence prospective teachers' readiness to integrate LLAs in ELT?

4. Prospective teachers encounter notable challenges such as limited digital competence, lack of pedagogical guidance, or infrastructural constraints that hinder their effective integration of LLAs into English language teaching.

1.5 Theoretical Framework

The integration of LLAs into ELT is rooted in multiple intersecting theories of language acquisition, technology adoption, and teacher preparedness. To understand and explore the readiness of prospective teachers, this study draws upon the following theoretical perspectives:

1. Technological Pedagogical Content Knowledge (TPACK) Framework

The TPACK framework, proposed by Mishra & Koehler in 2006, is central to this study as it examines how prospective teachers integrate technology (LLAs) with pedagogical strategies and subject matter knowledge (English language teaching). TPACK emphasizes that effective teaching with technology requires an understanding of the complex interplay between these three domains. This study uses TPACK as a lens to evaluate teachers' readiness how well they can combine their content knowledge of English, pedagogical skills, and familiarity with language learning technologies.

2. Technology Acceptance Model (TAM)

TAM, developed by Davis in 1989, explains users' acceptance and use of technology, focusing on perceived usefulness and perceived ease of use. In the context of LLAs, this model helps in understanding the attitudes and behavioural intentions of prospective teachers toward integrating mobile applications into their ELT practices. Teachers' readiness can be influenced by their perception of how beneficial and accessible these tools are in improving language learning outcomes.

3. Mobile-Assisted Language Learning (MALL) Paradigm

MALL is a branch of CALL (Computer-Assisted Language Learning) (Kaceti & Klimova, 2019) that focuses on using mobile technologies for language learning. This theoretical perspective emphasizes ubiquity, personalization, informality, and accessibility, which are defining features of LLAs. The MALL paradigm frames how prospective teachers perceive and experience the advantages and limitations of using LLAs in real or simulated classrooms.

4. Constructivist Learning Theory

The study is informed by the Constructivist Learning Theory, advanced by Piaget and Vygotsky, which posits that learners actively construct knowledge

through interaction and engagement with tools and environments. LLAs, especially those employing gamification, adaptive learning, and AI-based feedback, foster self-directed, collaborative, and contextualized learning experiences. Teachers' readiness is shaped by their beliefs in such learner-centred approaches and their capacity to facilitate them.

5. Digital Literacy Frameworks

Digital literacy is a crucial underpinning in evaluating prospective teachers' ability to navigate, evaluate, and create information using digital technologies. It encompasses technical, cognitive, and socio-emotional skills required for the effective integration of LLAs. This study considers digital literacy as a foundational component influencing both TPACK development and readiness for mobile learning integration. The study refers to Digital Literacy Frameworks (e.g., JISC, UNESCO) to outline the essential skills required for effective and responsible engagement with digital technologies.

Combining these frameworks allows this study to holistically examine the multi-dimensional readiness of prospective teachers:

- Knowledge (TPACK, digital literacy)
- Attitudes and beliefs (TAM, Constructivism)
- Contextual understanding and application (MALL, ELT-specific practices)

The framework provides a structured lens to analyse the interrelation between teacher cognition, technological access, pedagogical strategies, and institutional challenges. These theories also provide a solid basis to prepare the research tools to understand the readiness of the prospective teachers.

2.0 REVIEW OF THE RELATED LITERATURE

The growing integration of digital technologies in ELT has generated extensive research on ICT use, mobile-assisted language learning (MALL), and more recently, AI-enabled language learning tools. However, a closer examination of this literature reveals uneven attention to teacher readiness, particularly among prospective English teachers, and limited focus on LLAs as a distinct pedagogical medium within teacher education.

Teacher Readiness for Technology Integration in ELT

Several studies have examined teachers' and pre-service teachers' readiness to integrate digital technologies, emphasizing digital competence, pedagogical beliefs, and institutional support. Du et al. (2025), using Krumsvik's digital competence framework, reported that Vietnamese pre-service EFL teachers demonstrated moderate to high levels of technical competence but faced challenges related to pedagogical application, psychological barriers, and

infrastructural constraints. Similarly, Alaka et al. (2025) found that EFL pre-service teachers perceived themselves as technologically prepared; however, their readiness was strongly influenced by external factors such as curriculum design, training opportunities, and institutional encouragement.

Research from Saudi Arabia and Indonesia further corroborates these findings. Alghamdi (2022) and Aisiyah (2022) observed generally positive attitudes toward technology-enhanced language learning among pre-service and in-service teachers, yet both studies identified limited confidence in designing technology-mediated tasks and creating digital content. These studies collectively suggest that readiness extends beyond access and basic skills, encompassing pedagogical adaptability, confidence, and reflective practice areas that teacher education programmes must explicitly address.

Despite this growing body of work, much of the research conceptualizes readiness in relation to general ICT tools or learning management systems, rather than isolating LLAs as a specific instructional resource. Consequently, how prospective teachers prepare to pedagogically integrate LLAs into ELT remains insufficiently explored.

Pedagogical Potential of Language Learning Apps and MALL

Parallel to teacher-focused research, a substantial body of literature highlights the pedagogical affordances of LLAs and MALL for English language learning. Studies demonstrate that mobile applications enhance learner engagement, accessibility, and skill development through features such as spaced repetition, multimodal input, gamification, and collaborative learning (Jadhav & Gavade, 2024; Fan *et al.*, 2023). Empirical studies across diverse contexts have shown significant gains in vocabulary acquisition, grammar learning, and overall proficiency when apps such as Kahoot!, Duolingo, Busuu, and Moodle are integrated into instruction (Quiroz, 2021; Gou, 2023; Mengorio & Dumlao, 2019; Guaqueta & Castro-Garces, 2018).

Systematic reviews further emphasize that successful app integration depends on pedagogical alignment, learner readiness, and supportive classroom environments (Lim & Toh, 2024). However, these studies predominantly focus on learner outcomes and app effectiveness, often overlooking the role of teachers as mediators of mobile learning. As Jadhav and Gavade (2024) note, much existing research prioritizes app design over the instructional decision-making processes that govern meaningful classroom integration.

Emerging Trends: AI, Ethics, and Institutional Constraints

Recent scholarship has begun to explore AI-powered language learning technologies, highlighting

both their transformative potential and implementation challenges. Benek (2025) reported that while learners value AI-driven personalization, teachers express concerns related to ethical issues, curricular alignment, and institutional readiness. Earlier work by Pikhart (2020) similarly revealed a gap between AI's theoretical potential and its practical application in existing language learning apps. These findings underscore the necessity of preparing future teachers not only to use emerging technologies, but also to critically evaluate their pedagogical and ethical implications.

Institutional and infrastructural barriers further complicate technology integration. Studies from conflict-affected and developing contexts reveal persistent issues of digital inequity, limited access, and insufficient pedagogical support for both teachers and learners (Yousofi *et al.*, 2025; Criollo-C *et al.*, 2021). Such constraints highlight that readiness is a multidimensional construct shaped by personal competence, institutional ecosystems, and policy environments.

Research Gaps and Rationale for the Present Study

A synthesis of the literature reveals three critical gaps. First, existing studies largely emphasize general ICT or MALL integration, without examining language learning apps as a distinct pedagogical tool within ELT. Second, although teacher readiness has been widely discussed, prospective English teachers' readiness to integrate LLAs particularly from a pedagogical perspective remains underexplored. Third, much of the available research is situated in international contexts, resulting in a notable paucity of empirical evidence from the Indian teacher education landscape.

Given the increasing prominence of LLAs in formal and informal language learning, it is imperative to understand how future English teachers perceive their preparedness, navigate pedagogical challenges, and envision the role of apps in ELT classrooms. Addressing these gaps, the present study explores the readiness of prospective teachers in India to integrate language learning apps in English language teaching, thereby contributing context-sensitive insights to the growing discourse on digital pedagogy and teacher education.

3.0 METHODOLOGY

Research Design

To explore the readiness of prospective teachers to integrate LLAs in ELT, this study employed a descriptive research design that enabled a systematic understanding of participants' familiarity, attitudes, and preparedness without experimental manipulation.

Participants and Sampling

The sample comprised 55 B.Ed. (English Method) learners from The English and Foreign Languages University, Hyderabad, and University College of Education, Osmania University during the

2024–2026 academic session. Participants were selected through purposive sampling, ensuring relevance to ELT pedagogy and technology integration.

Instrumentation

A researcher-developed questionnaire containing 22 items both closed- and open-ended was used to collect data. The instrument examined participants' motivation, attitude, familiarity with LLAs, TPACK, digital literacy, readiness, challenges, and future directions. Expert validation was sought to ensure clarity and content relevance.

Data Collection Procedure

Data were collected online via Google Forms over three weeks in the 2024–2025 academic year. Participants were briefed on the study's purpose and assured of confidentiality before completing the questionnaire.

Data Analysis

Data were analysed using descriptive statistics (percentages and graphical representations) for closed-

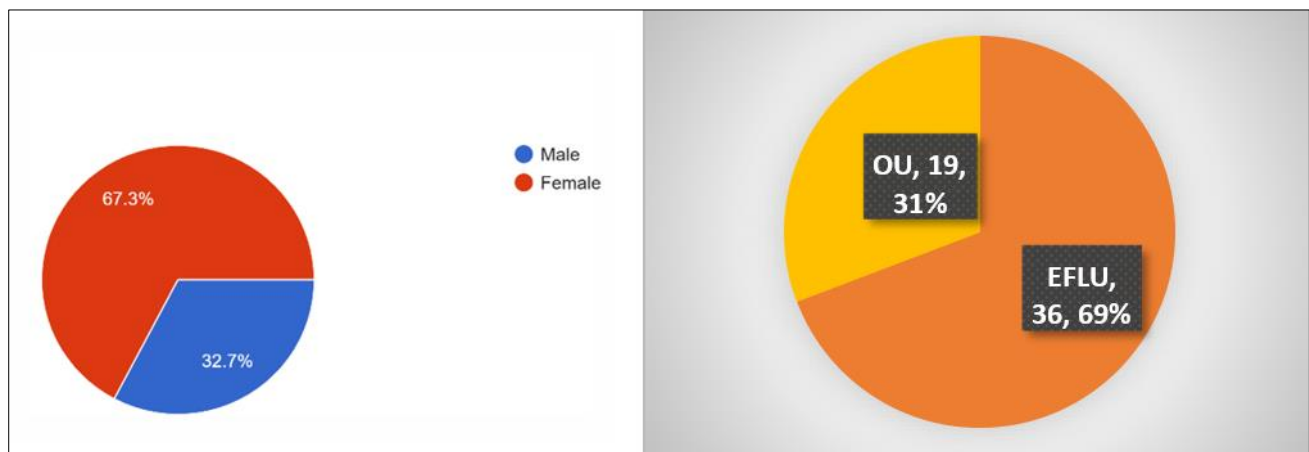
ended responses, while open-ended data were thematically analysed to complement quantitative findings and provide deeper contextual insights.

Ethical Considerations

The study followed standard ethical protocols. Informed consent was obtained from all participants, and participation was entirely voluntary. No identifying information was collected, ensuring anonymity and confidentiality throughout the process.

4.0 RESULTS

The following section presents an integrated analysis of quantitative and qualitative findings to address the stated objectives. The data collected from 55 B.Ed. student-teachers reveal noticeable variations in their familiarity, attitudes, digital competence, and readiness to integrate LLAs into ELT. The following tables and interpretations summarize the quantitative outcomes while integrating key reflections from open-ended responses.



I. Closed-ended Questions:

4.1: Attitudes towards Language Learning Apps

Sl. No.	Statements	SD (%)	D (%)	N (%)	A (%)	SA (%)
1.	LLAs are effective tools for language instruction.	0	0	10.9	52.7	36.4
2.	I am comfortable using technology for teaching.	0	3.6	7.2	45.5	43.6
3.	Language learning apps enhance student engagement.	3.6	32.7	30.9	25.5	7.3
4.	I believe language learning apps can replace traditional teaching methods.	1.8	3.6	7.3	52.7	34.5
5.	LLAs cannot be used for all the concepts.	0	5.5	21.8	58.2	14.5
6.	I am willing to invest time in learning about the LLAs.	0	0	16.4	54.5	29.1
7.	LLAs are too costly.	1.8	7.3	43.6	36.4	10.9

Interpretation:

Overall, attitudes are strongly positive. Most participants see LLAs as motivating and useful but treat them as complementary to not replacements for traditional teaching. This balanced perception reflects

pedagogical realism, consistent with findings from Alghamdi (2022) and Kukulska-Hulme and Viberg (2018). The willingness to invest learning time (83%) indicates openness to lifelong digital learning, echoing Du et al. (2025).

4.2: a. Familiarity with Language Learning Apps

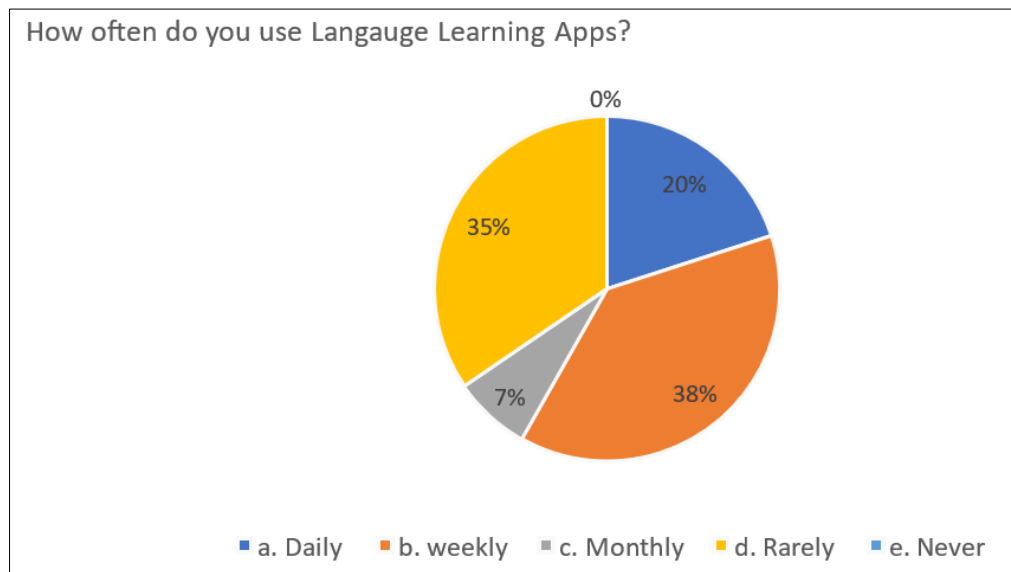


Chart 4.2.1

b. Extent of Familiarity and Non-familiarity with LLAs

Sl. No.	Name of the LLA	Familiar with the app (%)	Used the app (%)	None (%)
1	Duolingo	63.6	49.1	14.5
2	Memrise	14.5	5.5	83.6
3	Babbel	21.8	9.1	69.1
4	Google Translate	65.5	67.3	3.6
5	Busuu	7.3	1.8	90.9
6	Grammarly	61.8	60	12.7
7	ELSA Speak	12.7	14.5	74.5
8	Clozemaster	7.3	3.6	89.1
9	Beelinguapp	10.9	1.8	87.3
10	Xeropan	5.5	1.8	92.7
11	HiNative	9.1	1.8	89.1
12	Preply	27.3	7.3	69.1
13	Hello English	38.2	12.7	60
14	FluentU	23.6	7.3	70.9
15	Udemy	60	32.7	36.4

Hence, it can be seen that familiarity is concentrated around apps commonly used for general or self-learning purposes rather than pedagogically advanced LLAs such as ELSA or Busuu.

Interpretation: Limited institutional exposure shapes this profile. Learners depend on freely accessible

or self-discovered tools, as evidenced in Fan et al. (2023). Awareness depends more on social and peer networks than on teacher education curricula a focus area for training intervention.

4.3: Technological Pedagogical Content Knowledge (TPACK)

Domain	Proficient and Above (%)	Observations
Integrating technology in teaching	25.4	Majority remain developing rather than confident users.
Designing tech-based activities	30.9	Creative use evident; more guidance required.
Assessing through technology	27.3	Stronger in content creation than in assessment.
Basic digital literacy	74.5	Indicates foundational readiness for EdTech integration.

Interpretation:

While digital literacy appears solid (74.5% proficient and above), pedagogical technology application remains moderate. Teachers show readiness to use tools like Google Forms, Canva, and Mentimeter

but lack confidence in creating app-integrated assessments, consistent with Aisyiyah (2022).

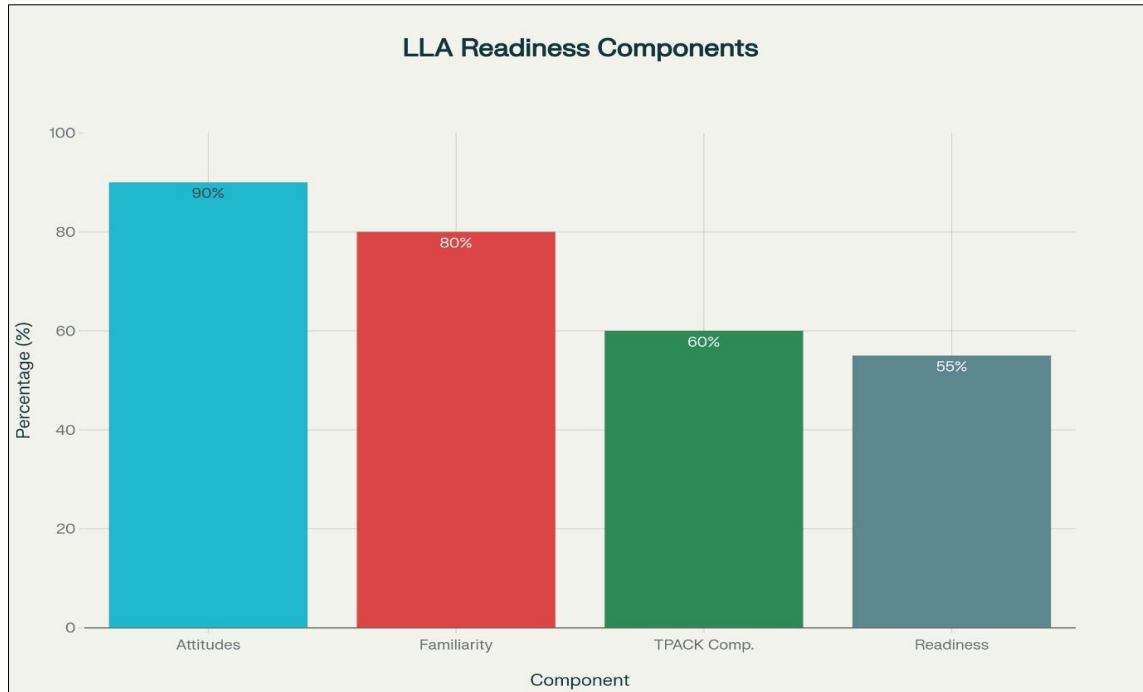
4.4: a. Readiness to Integrate Language Learning Apps

Chart 4.4.1: Summary of Prospective Teachers' Readiness to Integrate LLAs

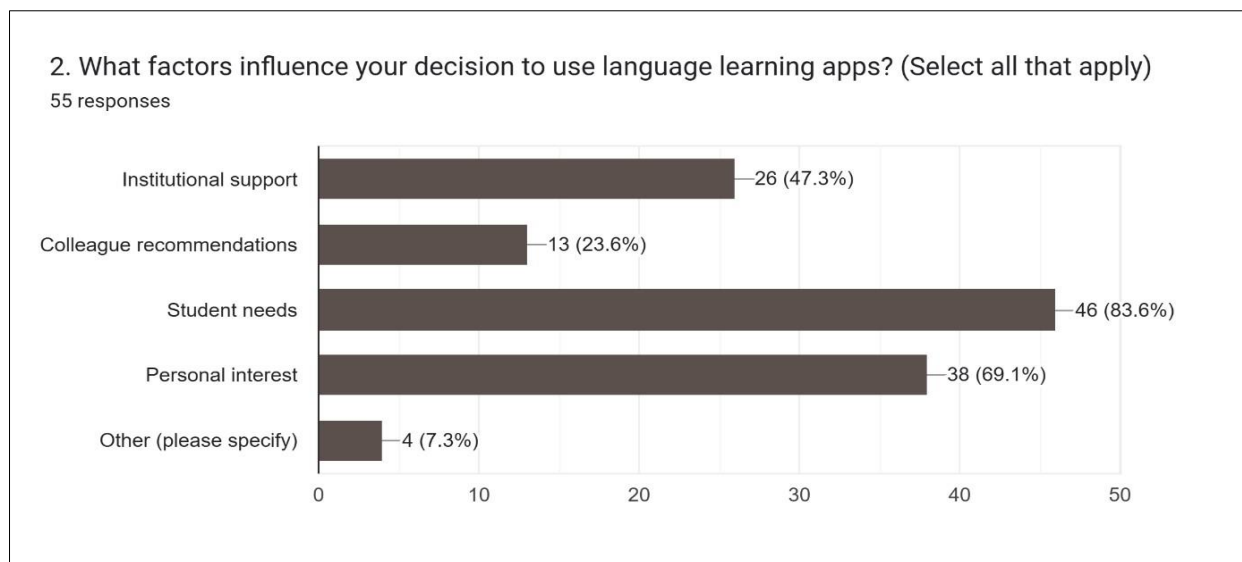
b. Key influencing factors reported:

Chart 4.4.2

Interpretation: More than half the participants are either “likely” or “very likely” to use LLAs in class. However, infrastructural barriers and lack of training persist. Self-efficacy remains high, yet practical limitations curb full integration potential. These results

echo Alaka *et al.*, (2025) and Du *et al.*, (2025), who noted contextual readiness depends heavily on institutional facilitation.

Qualitative Insights

II. Open-ended Responses

4.5 Benefits identified	☐	Motivates self-learning and peer collaboration.
	☐	Enhances engagement via gamified interaction.
	☐	Allows continuous skill practice outside classroom boundaries.
	☐	Improves pronunciation through tools like Duolingo and ELSA.

4.6 Challenges noted	Poor network connectivity and device disparity. Limited awareness of pedagogically rigorous apps. Overreliance on automated correction tools (e.g., Grammarly).
4.7 Integration and Implementation	Blending app-based tasks with collaborative activities enables authentic language practice and student autonomy alongside technology.
4.8 TPACK and Digital Literacy	Teacher confidence in using digital tools for lesson design and assessment reflects growing proficiency and the need for continuous training under TPACK.

Interpretation:

These reflections underscore that readiness exists primarily at an individual level. These responses illuminate the need for structured teacher preparation programmes. Participants' reflective remarks emphasize the contextual gap between app availability and pedagogical utility. Criollo-C et al. (2021) observed similar dynamics in Latin American settings, noting that without infrastructural and policy reinforcement, mobile learning remains add-on rather than integrated practice.

4.9 Overall Interpretation

Prospective teachers exhibit strong attitudes and digital competence but limited pedagogical depth in integrating LLAs into ELT. The overall readiness level remains promising but transitional. These results align with the Technology Acceptance Model (TAM), emphasizing perceived usefulness and ease of use, and with the TPACK framework, which explains the need for overlapping technological, pedagogical, and content mastery (Koehler & Mishra, 2009). Effective teacher preparation programmes should therefore blend practical digital literacy with pedagogical design tasks involving LLAs, cultivating confidence and contextual adaptability.

5.0 DISCUSSION

The present study explored prospective teachers' familiarity with LLAs, their attitudes toward integrating these tools in English language teaching, and the factors influencing their readiness to adopt app-based pedagogies. Overall, the findings reveal a pattern of positive attitudes and foundational digital competence, accompanied by moderate pedagogical readiness and contextual constraints, reflecting trends widely reported in contemporary MALL and teacher education research.

Attitudes toward LLAs and Pedagogical Orientation

Prospective teachers in this study demonstrated strong positive attitudes toward LLAs, perceiving them as effective, engaging, and motivating tools for language learning. However, they did not view LLAs as substitutes

for traditional teaching methods, instead positioning them as complementary instructional resources. This balanced stance aligns with earlier studies suggesting that teachers tend to adopt mobile technologies pragmatically, integrating them alongside conventional pedagogy rather than replacing classroom instruction entirely (Alghamdi, 2022; Kukulska-Hulme & Viberg, 2018).

Such cautious optimism reflects pedagogical realism rather than resistance, indicating that prospective teachers recognize both the affordances and limitations of app-based learning. The high willingness to invest time in learning about LLAs further corroborates findings by Du et al. (2025) and Alaka et al. (2025), who reported openness among pre-service teachers toward professional growth in digital pedagogy, even when institutional support remains uneven.

Familiarity with LLAs: Informal Exposure versus Pedagogical Awareness

Despite positive attitudes, participants' familiarity with LLAs was largely confined to widely accessible, multifunctional applications such as Google Translate, Duolingo, and Grammarly. In contrast, pedagogically specialized apps designed for pronunciation, interaction, and proficiency development (e.g., ELSA Speak, Busuu) remained largely unfamiliar. This pattern mirrors findings by Fan et al. (2023), who observed that engagement with LLAs is often driven by informal learning practices, peer networks, and self-directed exploration rather than structured teacher education curricula.

While prior research has demonstrated the effectiveness of advanced LLAs for enhancing language proficiency (Gou, 2023; Lim & Toh, 2024), the present findings suggest a disconnect between what is pedagogically possible and what prospective teachers are prepared to implement. This gap underscores the need for teacher education programmes to move beyond general ICT exposure and explicitly model pedagogically grounded LLA integration.

TPACK, Digital Competence, and Pedagogical Readiness

The findings related to Technological Pedagogical Content Knowledge (TPACK) further illuminate this disconnect. Although participants exhibited strong basic digital literacy, their confidence in designing app-integrated learning activities and assessments was only moderate. This imbalance is consistent with earlier research indicating that operational digital skills do not automatically translate into pedagogical competence (Aisiyiah, 2022; Du *et al.*, 2025).

Similar patterns reported by Alaka *et al.* (2025) reinforce the argument that readiness must be understood as a multidimensional construct, requiring the integration of technological, pedagogical, and content knowledge. From a TPACK perspective (Koehler & Mishra, 2009), the findings suggest that prospective teachers are positioned at a transitional stage technologically capable yet pedagogically underprepared for systematic LLA integration.

Readiness to Integrate LLAs: Individual Willingness and Structural Constraints

More than half of the participants expressed a strong likelihood of using LLAs in their future classrooms, indicating promising levels of individual readiness and self-efficacy. However, this readiness is tempered by persistent infrastructural barriers, limited training opportunities, and unequal access to digital resources. This coexistence of high motivation and practical constraints reflects a recurring tension in MALL research, where teachers' willingness often outpaces institutional readiness (Criollo-C *et al.*, 2021; Du *et al.*, 2025).

These findings resonate with Alaka *et al.* (2025), who emphasized that contextual and institutional facilitation plays a critical role in transforming positive attitudes into sustained pedagogical practice. Without adequate infrastructural support and curricular alignment, LLAs risk being treated as supplementary or optional tools rather than integral components of ELT.

Qualitative Insights and Emerging Ethical Concerns

The qualitative data enrich the quantitative findings by highlighting perceived benefits such as increased learner engagement, autonomy, and opportunities for extended practice beyond the classroom. These affordances echo earlier studies that underscore the motivational and affective advantages of mobile-assisted language learning (Jadhav & Gavade, 2024; Fan *et al.*, 2023).

At the same time, participants' concerns regarding overreliance on automated correction tools, particularly in apps such as Grammarly, align with emerging research on ethical and pedagogical challenges

associated with AI-driven language technologies (Benek, 2025). These concerns point to the necessity of preparing future teachers not only to use LLAs effectively but also to critically evaluate their limitations and implications for language development.

Implications for Teacher Education and Digital Pedagogy

Taken together, the findings suggest that prospective teachers' readiness to integrate LLAs is promising yet incomplete. The results align with the Technology Acceptance Model (TAM), as participants' perceived usefulness and ease of use strongly influence their willingness to adopt LLAs. However, sustained integration depends on the development of pedagogical competence, as emphasized by the TPACK framework.

The study therefore reinforces the need for teacher education programmes to embed hands-on, pedagogically oriented training in LLA integration, focusing on lesson design, assessment, ethical awareness, and contextual adaptability. By bridging the gap between digital familiarity and pedagogical application, such initiatives can enable prospective teachers to move from exploratory use toward meaningful, curriculum-aligned integration of language learning apps in ELT.

6.0 CONCLUSION AND IMPLICATIONS

LLAs have emerged as transformative tools, offering various features that can significantly enhance the language learning experience. Gangaianaran and Pasupathi (2017) documented the existence of numerous learning apps for EFL learners to learn and practice language skills and established that smartphone apps helped learners acquire better listening skills than any other technological device. However, their successful integration relies heavily on the preparedness of educators to adapt to these technological advancements. The findings highlight that prospective teachers' readiness to integrate LLAs into ELT is not only determined by their TPACK (Koehler & Mishra, 2009) but also by the presence of institutional support and resource availability. Embedding LLA-focused training in initial teacher education emphasizing both technical skills and pedagogical strategies within the TPACK framework will strengthen teachers' capacities to implement digital tools effectively (Maor, 2013; Kukulska-Hulme & Viberg, 2018). Simulation-based learning modules can help future educators reflect on and practice technology integration, fostering a more adaptable digital pedagogy (Du *et al.*, 2025). Furthermore, when institutions provide stable internet connectivity and multimedia infrastructure, they enable a shift from theoretical readiness to practical application (Fan *et al.*, 2023). National curriculum bodies should consider setting standards for blended learning designs within ELT preparation, thereby supporting widespread adoption of mobile-assisted learning. At the policy level, aligning these findings with curriculum reform can help

ensure that new educators are fully equipped to meet learner needs in technology-rich environments (Alghamdi, 2022).

□ Suggestions for Practice

Integrating LLAs with conventional classroom methods can enhance engagement, learner autonomy, and differentiated instruction (Kukulska-Hulme & Viberg, 2018). Teachers should design lesson plans featuring interactive and gamified activities, which help learners build vocabulary and grammar skills while accessing adaptive feedback through app platforms (Du *et al.*, 2025). Additionally, the use of in-app analytics can support tailored instructional adjustments, optimizing learning outcomes for diverse student groups (Fan *et al.*, 2023). Ongoing professional development is vital to embed digital pedagogy within the TPACK framework, ensuring teachers are confident and capable in using LLAs. Institutions and policymakers need to prioritize equitable access to digital resources and infrastructure, especially in under-resourced educational contexts, if sustainable integration is to be achieved (Alghamdi, 2022).

Future Research Directions

Emerging technologies such as Artificial Intelligence (AI), Augmented Reality (AR), and Virtual Reality (VR) are likely to further transform language learning through personalized and immersive experiences. Future research should explore how these technologies can be used in language education for EFL learners, focusing on their potential to enhance language skills while considering aspects such as cost, inclusivity, and pedagogical alignment (Jadhav & Gavade, 2024; Alaka *et al.*, 2025).

REFERENCES

- Aisiyiyah, M. N. (2022). Pre-Service English Teachers' Perceived Readiness for Technology-Enhanced Language Learning. *ELT Echo: The Journal of English Language Teaching in Foreign Language Context*, 7(2), 203-213. <https://doi.org/10.24235/eltecho.v7i2.12509>
- Alaka, A., Nurhayati, L., Widayanti, E., Habiburrahman, H., Kurniawan, I., & Amin, M.S. (2025). Investigating the Readiness of EFL Pre-Service Teachers in Implementing Technology-Based Teaching: A Phenomenological Study. *JOLLT Journal of Languages and Language Teaching*, 13(3), 1493-1504. <https://doi.org/10.33394/joltt.v13i3.14326>
- Alghamdi, N. (2022). EFL teachers' perceptions on the implementation of mobile-assisted language learning in Saudi Arabia during COVID-19: Challenges and affordances. *Journal of Language Teaching and Research*, 13(1), 92-100. <https://doi.org/10.17507/jltr.1301.11>
- Benek, K. (2025). EFL learners' and teachers' perceptions of ai-powered language learning technologies: Benefits and challenges. *International Journal of Instruction*, 18(2), 103-120. <https://doi.org/10.29333/iji.2025.1827a>
- Burstson, J. (2015). Twenty years of MALL project implementation: A meta-analysis of learning outcomes. *ReCALL*, 27(1), 4-20. <https://doi.org/10.1017/S0958344014000159>
- Cai, J. G. (2017b). Review of Chinese Tertiary English Education: Failure and Lessons. *Journal of Northeast Normal University: Philosophy and Social Sciences*, 5, 1-7.
- Chai, C. S., Koh, J. H. L., & Tsai, C.-C. (2013). A review of technological pedagogical content knowledge. *Educational Technology & Society*, 16(2), 31-51.
- Criollo-C, S., Guerrero-Arias, A., Jaramillo-Alcázar, Á., & Luján-Mora, S. (2021). Mobile Learning Technologies for Education: Benefits and Pending Issues. *Applied Sciences*, 11(9), 4111. <http://doi.org/10.3390/APP11094111>
- D'Souza, R., Shet, J. P., Alanya-Beltran, J., Tongkachok, K., Hipolito-Pingol, G., & Sameem, M. A. M. (2021). "I teach the way I believe": EFL teachers' pedagogical beliefs in technology integration and its relationship to students' motivation and engagement in the COVID-19 pandemic year. *International Journal of Learning, Teaching and Educational Research*, 20(11), 387-406. <https://doi.org/10.26803/ijlter.20.11.21>
- Du, T.M., Nguyen, T.N., & Hoang, K.N. (2025). Pre-service EFL teachers' perceived readiness in using ICT in their learning and teaching. *International Journal of Technology in Education (IJTE)*, 8(4), 891-913. <https://doi.org/10.46328/ijte.1247>
- Fan, X., Liu, K., Wang, X., & Yu, J. (2023). Exploring Mobile Apps in English Learning. *Journal of Education, Humanities and Social Sciences*, 8, 2367-2374.
- Gangaamaran, R., & Pasupathi, M. (2017). Review on use of mobile apps for language learning. *International Journal of Applied Engineering Research*, 12(21), 11242-11251. https://www.ripublication.com/ijaer17/ijaerv12n21_102.pdf
- Gou, P. (2023). Teaching English using mobile applications to improve academic performance and language proficiency of college students. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-023-11864-9>
- Guaqueta, C.A., & Castro-Garcés, A. Y. (2018). The Use of Language Learning Apps as a Didactic Tool for EFL Vocabulary Building. *English Language Teaching*, 11(2), 61-71. <https://doi.org/10.5539/elt.v11n2p61>
- Jadhav, S. & Gavade, P. (2024). Language Learning App. *International Journal of Research Publication and Reviews*, 5(6), 6730-6734.

- Kacetl, J., & Klimova, B. (2019). Use of Smartphone Applications in English Language Learning A Challenge for Foreign Language Education. *Education Sciences*. <http://doi.org/10.3390/EDUCSCI9030179>
- Klimova, B. (2019). Impact of Mobile Learning on Students' Achievement Results. *Education Sciences*. <http://doi.org/10.3390/EDUCSCI9020090>
- Koehler, M. J., & Mishra, P. (2009). What is technological pedagogical content knowledge (TPACK)? *Contemporary Issues in Technology and Teacher Education*, 9(1), 60–70.
- Kukulska-Hulme, A., & Viberg, O. (2018). Mobile collaborative language learning: State of the art. *British Journal of Educational Technology*, 49(2), 207–218. <https://doi.org/10.1111/bjet.12580>
- Lim, F. V., & Toh, W. (2024). APPS for ENGLISH LANGUAGE LEARNING: A SYSTEMATIC REVIEW. *Teaching English with Technology*, 24(1), 79–98. <https://doi.org/10.56297/FSYB3031/GAQR3589>
- Loewen, S., Crowther, D., Isbell, D. R., Kim, K. M., Maloney, J., Miller, Z. F., Rawal, H., & Wolff, D. (2019). Mobile-assisted language learning: A Duolingo case study. *ReCALL*, 31(3), 293–311. <https://doi.org/10.1017/S0958344019000065>
- Maor, D. (2013. December 1-4). *Does the use of the TPACK model enhance digital pedagogies: We don't understand the present so how can we imagine the future?* [Conference Session]. 30th Ascilite Conference, Macquarie University, Sydney. <https://www.ascilite.org/conferences/sydney13/program/papers/Maor.pdf>
- Mengorio, T.M. & Dumlaio, R. (2019). The Effect of Integrating Mobile Application in Language Learning: An Experimental Study. *Journal of English Teaching*, 5(1), 50-62.
- Muckenheimer, C., Schefer-Wenzl, S., & Miladinovic, I. (2023). Efficacy Analysis of Mobile Language Learning Apps. In *ICFET '23: Proceedings of the 2023 9th International Conference on Frontiers of Educational Technologies* (pp.6-12). ACM. <https://doi.org/10.1145/3606150.3606152>
- Munday, P. (2016). The case for using Duolingo as part of the language classroom experience. *RIED: Revista Iberoamericana de Educación a Distancia*, 19(1), 83–101. <https://doi.org/10.5944/ried.19.1.14581>
- O'Neill, R., & Russell, A. M. T. (2019). Stop! Grammar time: University students' perceptions of the automated feedback program Grammarly. *Australasian Journal of Educational Technology*, 35(1), 42–56. <https://doi.org/10.14742/ajet.3795>
- Pikhart, M. (2020). Intelligent information processing for language education: The use of artificial intelligence in language learning apps. *Procedia Computer Science*, 176, 1412–1419.
- Quiroz, M. F., Gutiérrez, R., Rocha, F., Valenzuela, M. P., & Vilches, C. (2021). Improving English vocabulary learning through Kahoot!: A quasi-experimental high school experience. *Teaching English with Technology*, 21(2), 3–13.
- Reich, J., Ito, M., & Selwyn, N. (2022). Digital equity and educational technology in the post-pandemic world. *Educational Researcher*, 51(3), 171–180. <https://doi.org/10.3102/0013189X221083155>
- Yousofi, R., Golzar, J., & Yacoub, O. (2025). Digital divides and bridges: equity implications of EdTech in ESL education. *Frontiers in Education*, 10. <https://doi.org/10.3389/educ.2025.1590828>