FROM CALL TO MALL: THEORETICAL FOUNDATIONS AND PEDAGOGICAL POTENTIAL OF TECHNOLOGY-ASSISTED ENGLISH LANGUAGE LEARNING IN UZBEKISTAN

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Abstract. The article examines the theoretical development of Computer-Assisted Language Learning (CALL) and Mobile-Assisted Language Learning (MALL) and assesses their pedagogical potential for English as a foreign language (EFL) teaching in Uzbekistan. Using a qualitative analytical review of key publications and national digitalisation documents, the study describes the phases of CALL, compares CALL and MALL across pedagogical dimensions, and applies Chapelle's (2001) criteria to evaluate technology-based tasks. The results show that the role of technology has shifted from a drill tutor to an integrated tool for authentic communication, and that MALL adds portability, personalisation and informal learning. The article proposes practical conditions for effective integration in Uzbek classrooms, including task design, teacher preparation and attention to unequal access.

Keywords: CALL; MALL; mobile learning; EFL; normalisation; Chapelle's criteria; Uzbekistan.

1. Introduction

Digital technology has become a normal part of education in Uzbekistan. The "Digital Uzbekistan – 2030" Strategy, approved by Presidential Decree No. PF-6079 of 5 October 2020, set goals for developing digital infrastructure and digital services in education. At the same time, foreign language policy, beginning with Decree PQ-1875 of 2012, requires modern methods that help learners use English for real communication. The meeting point of these two policies is technology-assisted language learning.

In applied linguistics, this field is known as **Computer-Assisted Language Learning (CALL)**, defined by Levy (1997, p. 1) as the search for and study of applications of the computer in language teaching and learning. With the spread of smartphones, a related field emerged: **Mobile-Assisted Language Learning (MALL)**, which differs from desktop CALL in its use of personal, portable devices that allow learning in different contexts (Kukulska-Hulme & Shield, 2008).

Many Uzbek learners already use mobile applications, messengers and video platforms to learn English informally. However, classroom use of technology is often limited to presentations or occasional online tests. The problem, therefore, is not the lack of technology but the lack of a pedagogical framework for using it purposefully.

The **aim** of the article is to describe the theoretical foundations of CALL and MALL and to identify conditions for their effective use in EFL teaching in Uzbekistan. The research questions are: (1) How has the role of technology in language learning changed

over the phases of CALL? (2) What distinguishes MALL from CALL pedagogically? (3) Which criteria can Uzbek teachers use to select and design technology-based tasks?

2. Methods

The study is a qualitative analytical review. The corpus included (a) foundational works on the history and theory of CALL (Warschauer, 1996; Levy, 1997; Chapelle, 2001; Bax, 2003); (b) key publications on MALL (Kukulska-Hulme & Shield, 2008; Kukulska-Hulme, 2009; Stockwell, 2010; Hockly, 2013; Stockwell & Hubbard, 2013; Burston, 2014); and (c) national documents on education and digitalisation in Uzbekistan. The analysis followed three steps: identification of the phases of CALL and the changing role of the computer; comparison of CALL and MALL across six pedagogical dimensions; and application of Chapelle's (2001) six criteria for CALL task appropriateness to typical technology-based tasks in Uzbek EFL classrooms. As a theoretical study, it does not report empirical learning outcomes.

3. Results

1. Phases of CALL

The history of CALL shows a steady change in the role of the computer, which follows changes in language teaching theory (Figure 1). Warschauer (1996) described three phases: structural CALL, based on behaviourist drill and practice; communicative CALL, which used the computer to stimulate discussion and discovery; and integrative CALL, which combined multimedia and the internet to embed language use in authentic tasks. Bax (2003) argued that the final goal is **normalisation**, a state in which technology is used so naturally that it becomes invisible, like a pen or a book.

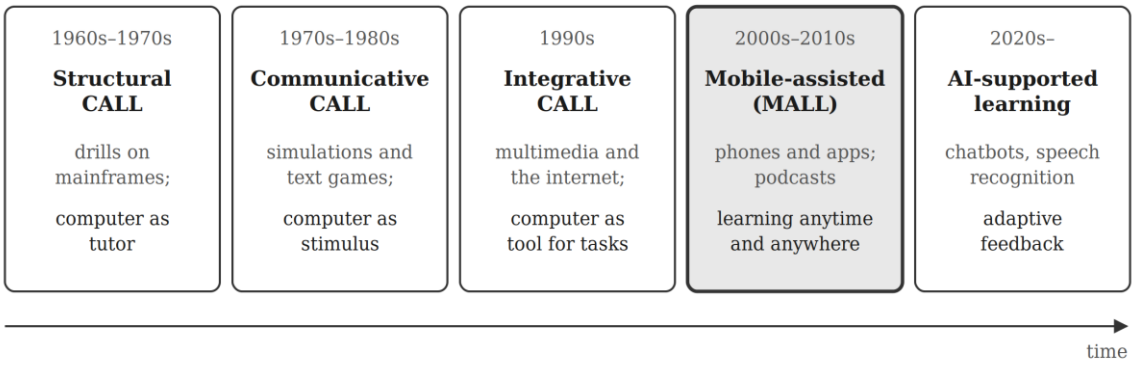


Figure 1. ***Phases of technology-assisted language learning (phases 1–3 based on Warschauer, 1996; see also Bax, 2003)***

2. CALL and MALL compared

MALL continues integrative CALL but changes the conditions of learning. Table 1 compares the two approaches.

Table 1.

Pedagogical comparison of CALL and MALL

Dimension	CALL	MALL
Device	Desktop or laptop computer, often shared	Personal smartphone or tablet
Place and time	Computer lab or home, scheduled sessions	Any place and time, short sessions
Learner control	Mostly teacher-planned	High: learners choose content and pace
Type of learning	Mainly formal	Formal and informal, in and outside class
Typical activities	Online exercises, corpus work, web projects, writing	Vocabulary apps, podcasts, voice messages, video recording, quizzes
Main limitations	Access to equipment, fixed location	Small screen, distraction, short attention, unequal access

The literature shows that MALL is particularly effective for vocabulary learning and listening, which suit short and frequent sessions (Stockwell, 2010; Burston, 2014). Speaking and writing benefit when mobile devices are used to record, share and revise learners' own output, for example through voice messages or short video tasks (Hockly, 2013).

3. Criteria for selecting technology-based tasks

Chapelle (2001) proposed six criteria for judging the appropriateness of CALL tasks. Table 2 turns them into questions for Uzbek EFL teachers and gives an example of a task that meets each criterion.

Table 2.

Chapelle's (2001) criteria applied to EFL tasks in Uzbekistan

Criterion	Question for the teacher	Example of a suitable task
Language learning potential	Does the task focus attention on language form and meaning?	Learners record a 1-minute talk, listen back and correct three errors
Learner fit	Does it match learners' level and needs?	Graded podcast episodes selected by CEFR level
Meaning focus	Is the learner's attention on meaning?	A class messenger group discussing a local news story in English
Authenticity	Does it resemble real-world language use?	Writing an English review of a Tashkent museum for a travel website
Positive impact	Does it build motivation and useful strategies?	A personal vocabulary app deck with learners' own examples
Practicality	Can it be done with available devices and internet?	Offline-capable apps; tasks that work on basic smartphones

4. Discussion

The results suggest that the question for Uzbek EFL teaching is no longer *whether* to use technology but *how* to use it so that it supports communicative goals. The phases of CALL show that technology serves the dominant teaching theory of its time: the same device can deliver mechanical drills or authentic communication. Where classroom practice remains grammar-focused, technology tends to reproduce structural CALL, for example through online multiple-choice tests. Moving towards integrative CALL and MALL therefore requires a change in task design, not only in equipment.

MALL is particularly relevant for Uzbekistan because smartphones are more widely available to learners than personal computers, and messengers and video platforms are already part of their daily lives. This creates an opportunity to extend English practice beyond the limited classroom hours, which is important in an EFL context with little natural exposure to the language. Kukulska-Hulme (2009) cautions, however, that mobile learning changes *where* and *when* learners study, but it does not automatically improve *how* they learn. Without teacher guidance, mobile use can remain fragmented, focused on isolated words and easily interrupted by distractions.

Three conditions appear essential for effective integration. First, **task design**: technology-based tasks should meet Chapelle's criteria, especially meaning focus and authenticity (Table 2). Second, **teacher preparation**: teachers need methodological training in CALL and MALL, not only technical skills; Stockwell and Hubbard (2013) emphasise that learner training is equally necessary. Third, **equity**: differences in internet quality and devices between urban and rural areas mean that tasks should work on basic smartphones and, where possible, offline.

Finally, the analysis places current AI tools as a continuation of integrative CALL and MALL (Figure 1). Chatbots, speech recognition and automated feedback extend the same logic of personalised, anytime practice. The same criteria (learning potential, meaning focus, authenticity and practicality) can therefore be applied to evaluate them, which connects this review with research on AI-based pedagogy.

5. Conclusion

The role of technology in language learning has moved from a drill tutor (structural CALL) to a tool for authentic tasks (integrative CALL) and, with MALL, to personal learning that continues outside the classroom. MALL offers Uzbek EFL learners portability, personalisation and more contact with English, but its effect depends on purposeful task design. Chapelle's (2001) criteria provide a practical checklist for teachers to select and design such tasks. Effective integration in Uzbekistan requires well-designed tasks, methodological training for teachers and learners, and attention to unequal access. Future empirical studies should test these conditions in Uzbek schools and universities.

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