



RESEARCH PAPER

CLT-CALL Integration for Communicative English Readiness among Pakistani Students

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ABSTRACT

This quantitative study examines the impact of instructional materials, pedagogical approaches, and technological gap in the teaching of English. In total, 145 intermediate learners from a local institution in Lahore, Pakistan, were involved in the study. The study comprised four steps: 1. English Language Learning Challenges Survey; 2. Contextual Briefing; 3. Training; and 4. CLT-CALL Integration Survey. The Challenges Survey was used to determine the main obstacles in the students' English language learning. A contextual briefing phase facilitated understanding of the elements and nuances of integrating CLT and CALL as potential solutions to their challenges. The participants were given four training sessions in which CLT activities were conducted through CALL with iSpring Suite Software, including role-playing, dialogues and discussion sessions. Lastly, the CLT-CALL Integration Survey assessed students' challenges and their thoughts about integrating CLT and CALL as a solution to their challenges. The findings reveal that the problems encountered by Pakistani intermediate ESL learners include fluency issues, inadequate teaching strategies, and cultural barriers. The results also show that the integration of CLT-CALL is positively accepted by the students, and they believe this integration could be highly effective for learning English as a second language (ESL). Furthermore, this study provides pedagogical suggestions to students, teachers, and education researchers.

KEYWORDS CALL, CLT, integration, English Proficiency, Communication, Perspective

Introduction

English is the predominant second language in Pakistan; however, Pakistani students struggle to communicate effectively in English (Shahabullah et al., 2025). To overcome the challenge, some institutes have begun adopting the communicative language teaching (CLT) approach, which focuses on developing learners' communicative competence (Sarfraz et al., 2015). Nevertheless, students encounter difficulties to enhance their English communication ability in special fields such as medicine, engineering, and computer science. Over the past few years, a number of studies have sought to address these issues. High failure rates in English examinations have a negative effect on affect students' morale and employment opportunities (Abdullah & Bhatti, 2018; Khan et al., 2020). This has, therefore, necessitated pragmatic strategies to improve English teaching pedagogies for the intended English learning outcomes, which are improved communication skills for ESL learners. A promising approach is the use of technology in language learning, a current trend. In Pakistan's educational context, technology has now been used to facilitate language learning through multimedia. However, there is still

insufficient integration of technology into ELT, preventing students from attaining linguistic fluency before entering their respective professional fields. Policymakers should ensure that the instructional materials developed for teachers connect to Pakistan's culture and society (Mansoor, 2003).

ELT in Pakistan cannot be understood without considering its context within the wider sociolinguistic and institutional setting (Shamim, 2011). The examination-centered culture and teacher-centered pedagogical approaches still dominate Pakistani classrooms, where communication is not the focus and students tend to memorize facts rather than learn through communication (Khan et al., 2020; Awan & Shafi, 2016). This conflict is especially pronounced in specialized fields like pre-engineering, where students are expected to be able to communicate effectively in English at school and at work, yet their language learning experience does not reflect these expectations. This is exacerbated by the uneven distribution of resources, with qualified ELT professionals and new instructional resources being unevenly distributed among institutions (Shamim & Rashid, 2019). The result is an inventory of learners with basic grammatical concepts but weak communicative competence in real-life contexts, a gap neither the traditional teaching approach nor the informal use of technology has been able to fully satisfy.

In this context, the need for pedagogically appropriate and contextually relevant solutions has become increasingly pressing. The Communicative Language Teaching (CLT) has been recognized for its ability to transform the passive role of the learner from listening and reading to active and meaningful use of language (Dos Santos, 2020; Richards, 2006); however, when teaching as a standalone approach in institutions that lack resources, it poses numerous challenges. On the other hand, Computer Assisted Language Learning (CALL) has provided new avenues for personalised, interactive and contextually rich learning of language (Wekerle et al., 2022), but has not always been used in formal ELT and has not been properly theorised in the Pakistani context. The combination of these two approaches, CLT and CALL, is a promising model for addressing the communicative shortfalls in the current context.

Literature Review

Communicative Language Teaching (CLT)

Emerging in the 1960s and 1970s, CLT marked a decisive shift from grammar-focused methods toward communicative competence as the central goal of language pedagogy (Dos Santos, 2020). The concept of communicative competence, introduced by Hymes (1972) in response to Chomsky's (1965) purely structural theory of linguistic competence, recognizes that effective language use requires not only grammatical knowledge but sociolinguistic awareness, discourse management, and contextual appropriateness (Whyte, 2019). CLT transformed classroom practice by replacing teacher-centered transmission models with learner-centered, task-based environments that foreground authentic communication and integrate fluency alongside accuracy (Jacobs & Farrell, 2003; Richards, 2006). Its dominance as a preferred pedagogical approach is well documented across EFL contexts; empirical evidence from university-level EFL settings confirms that the majority of experienced English language teachers favor CLT over all other available methods, citing its alignment with learner needs as the primary reason for adoption (Khalil & Kholofelo Semono-Eke, 2020).

Despite its theoretical strengths, CLT's implementation has proven uneven across ESL/EFL contexts characterized by examination-driven cultures, resource constraints, and deeply entrenched teacher-centered traditions (Koosha & Yakhabi, 2012; Noori, 2018).

Teachers frequently report conflicting pedagogical beliefs, low confidence in facilitating communicative tasks, and institutional pressure to prioritize measurable grammatical outcomes (Alharbi, 2022). In Pakistan specifically, early schooling emphasizes grammar and syntax to the extent that learners develop structural knowledge while remaining ill-equipped for spontaneous communicative performance (Awan & Shafi, 2016; Shamim & Rashid, 2019). Affective barriers compound this challenge: fear of error, reluctance to speak publicly, and cross-linguistic interference from Urdu further constrain communicative development among Pakistani ESL learners (Ali et al., 2020; Bukhari et al., 2015; Khan & Khan 2016). These challenges do not invalidate CLT but call for context-sensitive adaptation through technology-enhanced environments (Richards, 2006; Sarfraz et al., 2015)

Computer-Assisted Language Learning (CALL)

CALL has evolved from rudimentary digital drills into a sophisticated pedagogical framework capable of reconstructing language learning within technology-driven, interactive environments (Kumar & Sreehari, 2009). Its effectiveness across language skill domains is well established: multimedia annotation and computer-mediated glosses improve vocabulary retention and reading comprehension (Al-Seghayer, 2005); automatic speech recognition supports pronunciation development (Golonka et al., 2014); and technology-assisted teaching produces measurable gains in listening skills (Korkmaz & Güneyli, 2017). At the level of learner engagement, digital tools increase student participation in active and constructive learning tasks, and this engagement correlates positively with academic achievement (Wekerle et al., 2022). In the Pakistani context, however, consistent access to CALL and the digital literacy required to exploit it remain uneven, with students expressing strong willingness to engage provided adequate training and institutional support are available (Dahraj et al., 2020).

CLT-CALL Integration

The integration of CLT and CALL constitutes a theoretically principled and empirically supported pedagogical framework, as both approaches share a foundational commitment to authentic language use, learner agency, and communicative purpose (Blake, 2013; Sarfraz et al., 2015). CALL provides the technological infrastructure through which CLT's communicative ideals can be practically realized: interactive simulations, role-play environments, and digital communication platforms afford learners contextually rich opportunities to engage in meaningful language practice that mirrors real-world demands (Chang & S. Goswami, 2011). Students exposed to CLT activities within CALL environments consistently report greater motivation, higher participation, and stronger perceived relevance of classroom learning to their future professional and academic lives (Parvin & Salam, 2015; Sarfraz et al., 2015). The combination renders language learning more dynamic, contextually grounded, and aligned with contemporary communicative demands; a convergence that Mateo (2012) identifies as essential to developing functional communicative competence in digitally mediated educational settings. In summary, CALL encompasses a wide variety of activities that simplify the process of learning a new language, such as engaging tasks, online tools, and language learning applications and platforms.

Materials and Methods

A quantitative research approach was used in the present research. This study's main goal was to evaluate pre-engineering students' attitudes and perceptions towards the classroom with CLT and CALL integration in Pakistan.

Participants

145 participants were selected from a local college of Lahore, Pakistan. Their age range was between 17 and 19 ($M = 18.16$, $SD = 0.698$). A total of 145 students from pre-engineering backgrounds were involved in the survey to gain a profound understanding of their experiences and perceptions.

Data Collection and Analysis

The data was collected and analyzed using the following procedures:

Phase 0: English Language Learning Challenges Survey

English Language Learning Challenges Survey Participants filled out a paper-based questionnaire designed by the researcher in Phase 0, containing 10 items for each of which the focus was on different challenges in English language learning in general. The items were verified by two other PhD professors in ELT. Answers from the participants were taken on challenges in various aspects of English learning, including fluency, pronunciation, listening comprehension, and reading comprehension. The challenges were assessed on a scale of 1 to 5, with 1 being "Not a Challenge" and 5 being "Extreme Challenge". Cronbach α for the questionnaire was found to be 0.81, which indicated that the questionnaire is valid.

Phase 1: Contextual Briefing

The researcher highlighted the value of a contextual briefing to increase the effectiveness of the intervention and consistency of participants' responses. Thus, in Phase 1, prior to delivering the intervention and survey, the concepts of CLT and CALL integration were explained to ensure alignment of understanding, regardless of the participants' prior exposure to these concepts. The information provided to the participants was enriched but not too lengthy, and was well planned to increase the knowledge of the participants on the topics and minimize any misunderstandings arising from a lack of understanding.

Phase 2: Intervention

Phase 2 consisted of an eight-week intervention period that commenced right after the contextual briefing. Participants were separated into groups of a maximum of five students, and each group was assigned a list of activities in a randomized order. These activities aimed to engage the learners in meaningful and authentic language use. The participants were exposed to functional and social CLT activities conducted through CALL, such as role-play, dialogues, discussion sessions, virtual narratives, and comparing virtual scenes.

Virtual scenarios mirroring real-life situations were developed using iSpring Suite software, including activities like buying or selling at a marketplace, ordering food in a restaurant, booking travel accommodations, and participating in a job interview. Learners interacted with computer-generated characters or with one another to practice authentic communication in context. One interaction example was a buyer-seller scenario, where rich contextual input was provided to the learners through CALL, including background information to set the scene and spark their imaginations. The learners were then required to act as buyer-seller pairs to engage in discussions with each other.

A main example was the conversation between an engineering manager and a field engineer about the basic construction engineering project terminology related to the learners' curriculum. This scenario focused on clear, formal communication, and the participants were required to select the appropriate options. After performing the role-play, they were required to comment and discuss their views, and also had the opportunity to replicate this scenario in pairs.

Figure 1 shows the opening of the meeting scenario between the engineering manager and the field engineer developed in iSpring Suite Software. Figure 2 shows how the dialogues were mapped and linked together in the software.



Figure 1. Role-play scenario between the engineering manager and the field engineer developed on iSpring Suite Software emphasizing formal, clear communication in the practical field

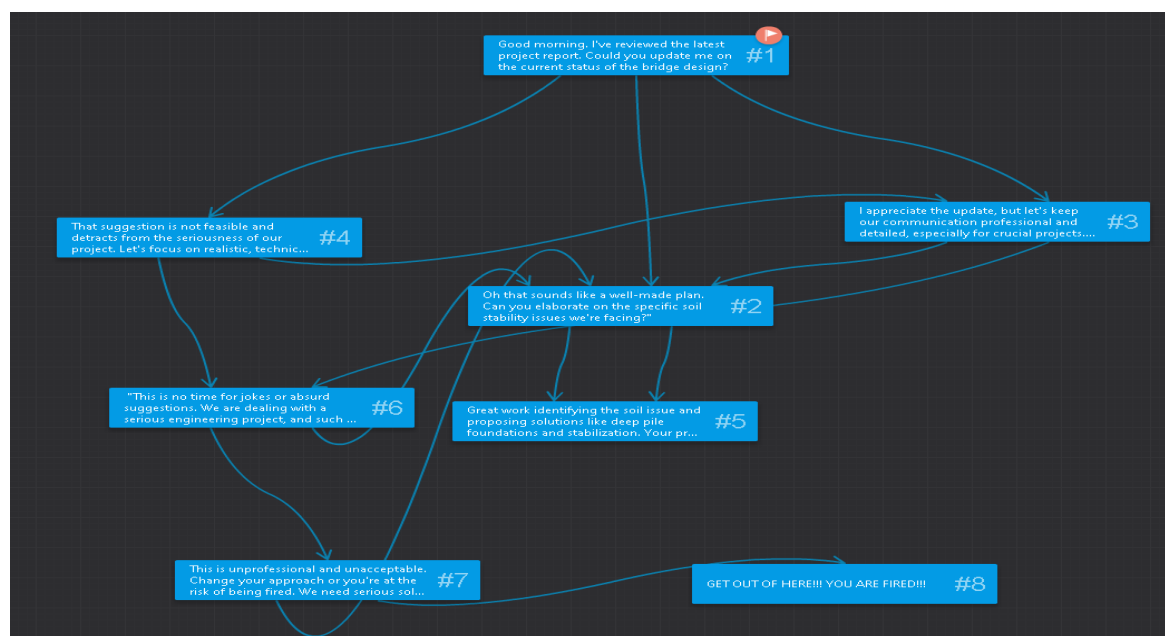


Figure 2. Map of dialogues in the role-play in iSpring Suite

Phase 3: CLT-CALL Integration Survey

In Phase 3, participants were given a paper-based questionnaire comprising six sections incorporating elements of CLT, CALL, and digital tools and their integration.

Section A consisted of general background/demographics-related questions. The following five sections, Sections B to F, were related to CLT experience, CALL experience, CLT and digital tools integration, and challenges faced by learners and their perceptions.

Data interpretation utilized a 5-point Likert Scale, where 1 = "strongly disagree," 2 = "disagree," 3 = "neutral," 4 = "agree," and 5 = "strongly agree." The agreeable rate (AR), calculated from the sum of "agree" and "strongly agree," serves as an indicator of "positive perception." A higher AR indicates a more positive perception, and vice versa. AR is denoted as AR_x to discuss the results, with X representing the survey item number. IBM SPSS was employed to generate descriptive statistics for the quantitative data obtained from the survey. The data collected from paper-based surveys was input into the software, where AR was determined. The validity of the questionnaire was established with a Cronbach's alpha of 0.81.

Results and Discussion

Table 1
Survey 1: English Language Learning Challenges Survey

#	ITEMS	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)
1	Fluency in speaking while communicating	11.1%	20.0%	31.1%	17.8%	20.0%
2	Pronouncing English words and sounds while speaking	8.9%	20.0%	35.6%	28.9%	6.7%
3	Restricted Vocabulary range and use while communicating	6.7%	26.7%	44.4%	20.0%	2.2%
4	Use of grammar and syntax while communicating	4.4%	51.1%	17.8%	13.3%	13.3%
5	Writing English to convey my ideas	0.0%	22.2%	37.8%	40.0%	0.0%
6	Listening and Reading Comprehension	2.2%	4.4%	51.1%	28.9%	13.3%
7	Fear of making mistakes while communicating	2.2%	2.2%	6.7%	42.2%	46.7%
8	Insufficient Exposure to English language input:	4.4%	11.1%	33.3%	33.3%	17.8%
9	Inappropriate teaching methods in classrooms	13.3%	17.8%	6.7%	40.0%	22.2%
10	Cultural Blockades	8.9%	11.1%	33.3%	26.7%	20.0%

The Survey 1 results in Table 1 offer an in-depth insight into answering RQ1, which asks about the challenges pre-engineering Pakistani ESL learners encounter in their English language learning and communication.

Participants' experiences of communicating vary widely in terms of fluency in speaking. A very large proportion (31.1%) feel it is challenging but not at the extreme level, whilst 20% feel it is difficult at the very high level. At the lower end of the spectrum, 11.1% of students see fluency not as a challenge. This wide range of responses could be due to diverse teaching methodologies across institutions.

Most (35.6%) say it is moderately challenging for them to produce words and sounds when speaking English. Two-fifths (28.9%) find it more difficult, while hardly any think it is a big challenge (6.7%). This indicates that pronunciation is a concern for many, but it may not be the most daunting issue for most people. Studies reveal that Pakistani ESL learners deviate from the standard pronunciation of English phonemes when producing various phonemes while speaking English because Urdu, as the national language shares some features with English that are different (Ali et al., 2020; ul Hassan & Qureshi, 2021)

Taking into account the range of vocabulary and its application for communication, a significant 44.4% of students find the limited range moderately challenging and another quarter 26.7% of students, find the limited range slightly challenging. It highlights the need for improving vocabulary skills in the learning process.

Grammar and syntax are an exciting trend when communicating. A majority (51.1%) rate it as 'not too difficult', meaning that although grammar is an issue, students' accounts indicate that it might not be overwhelmingly complex. It is found that from the early classes, grammar and syntax are taught in the Pakistani instructional method, which means that the learners might be well versed with these grammar and syntax (Awan &, 2016). In the same way, with respect to writing in English to express ideas, a large proportion (40.0%) considers it to be quite difficult, with another 37.8% saying that it is a moderate challenge. This indicates that there is a significant challenge in students' written communication. Most participants (51.1%) find listening and reading comprehension to be moderate. This highlights the importance of the curriculum having a greater emphasis on listening and reading. Moreover, Khan et al. (2020) found that "listening skills are not well developed at the intermediate level" (p. 98). They further concluded that students tend to develop rote learning skills instead of creative learning.

Students may be afraid of errors made during communication; 46.7% of students thought that it was one of the problems. This illustrates the psychological obstacles and fears of students when communicating in the English language (Ali et al., 2020). With regards to exposure to English language input, half of the students feel that it is moderate and the other half feel that it is quite complex. This demonstrates the need for further immersive experiences of English in their learning. This could be because the traditional teaching method that emphasizes reading, writing, and grammar and vocabulary is used (Awan & Shafi, 2016). In addition, 40.0% of the students consider ineffective teaching methods to be very difficult in the classroom which indicates a possible need to change the pedagogical approach.

Finally, 33.3% of the students consider cultural blockades as moderate challenges, reflecting the significant role that cultural issues play in learning English (Ali et al., 2020).

To sum up, these findings shed light on the complex issues of ESL learners' challenges in learning English and communicating in English in the context of Pakistan. They also highlight some areas that might need more attention and resources.

Table 2
Survey 2: Pakistani ESL Students' Perceptions of CLT-CALL Integration

#	ITEMS	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	AR (%)
SECTION B: CLT-BASED EXPERIENCE							
1	I am regularly encouraged to communicate freely in my English classes.	22.2	33.3	22.2	15.6	6.7	22.2
2	Classroom language activities are often relatable to real-life situations.	17.8	26.7	22.2	22.2	11.1	33.3
3	Mistakes in class are seen as part of the learning process.	15.6	22.2	17.8	26.7	17.8	44.4
4	I feel that my speaking and listening skills are the primary focus in English classes.	22.2	40.0	17.8	13.3	6.7	20.0
5	Peer-to-peer interactions are frequently used as a part of the learning process.	22.2	33.3	17.8	17.8	8.9	26.7
SECTION C: DIGITAL TOOLS/CALL EXPERIENCE							

6	I always get the chance to incorporate CALL into my English learning routine.	17.8	22.2	20.0	26.7	13.3	40.0
7	CALL makes the learning process more interactive and engaging.	6.7	11.1	22.2	37.8	22.2	60.0
8	The use of computer in English classes assists in better vocabulary retention.	13.3	17.8	20.0	33.3	15.6	48.9
9	CALL classes offer more diverse and enriching content.	11.1	15.6	17.8	33.3	22.2	55.6
10	I feel comfortable navigating and using CALL for language learning, if provided with a comprehensive tutorial.	4.4	6.7	8.9	44.4	35.6	80.0
SECTION D: INTEGRATION OF CLT AND CALL							
11	Technology enhances the realism of communicative activities in class.	4.4	15.6	24.4	33.3	22.2	55.6
12	CALL supports and complements the objectives of communicative language teaching.	2.2	17.8	22.2	42.2	15.6	57.8
13	CALL classrooms make practicing real-life communicative situations more accessible.	0.0	2.2	22.2	31.1	44.4	75.6
14	I believe CALL integration with communicative language teaching could significantly improve my pronunciation and listening comprehension skills.	0.0	4.4	13.3	35.6	46.7	82.2
15	The combined approach makes English learning more dynamic and relevant.	6.7	11.1	17.8	51.1	13.3	64.4
SECTION E: CHALLENGES							
16	Merging CALL with communicative activities sometimes feels overwhelming.	13.3	17.8	28.9	31.1	8.9	40.0
17	Technical issues occasionally disrupt the flow of communicative exercises.	8.9	13.3	15.6	28.9	33.3	62.2
18	There's a noticeable disconnect between digital content and classroom communicative practices.	6.7	15.6	26.7	37.8	13.3	51.1
19	I find it challenging to balance screen time with face-to-face interactions during classes.	17.8	24.4	28.9	20.0	8.9	28.9
20	The rapid pace of technological updates makes it hard to keep up with new tools and platforms.	13.3	20.0	26.7	22.2	17.8	40.0
SECTION F: LEARNERS' PERCEPTIONS AND MOTIVATIONS							
21	The combined approach aligns with the communicative demands of my future engineering career.	2.2	2.2	11.1	55.6	28.9	84.4
22	CALL integration in communicative classes increase my motivation and participation.	4.4	4.4	13.3	46.7	31.1	77.8
23	I believe that the integration of CLT into CALL will be an asset in my academic and professional journey.	4.4	8.9	15.6	48.9	22.2	71.1
24	The combined approach has made me more confident in using English in real-life scenarios.	11.1	15.6	17.8	40.0	15.6	55.6
25	I view tech integrated communicative teaching as the future of English education.	6.7	13.3	20.0	42.2	17.8	60.0

Table 2, provide substantial evidence.

In section B, the experiences of the participants are discussed based on Communicative Language Teaching (CLT). Many students need to be encouraged to speak

English freely in classes as shown by low AR₁ score of 22.3%. This is confirmed by Ali et al. (2020) who found 28% agreement and 42% strong agreement of the participants on the lack of encouragement to speak English in classrooms in the Pakistani ESL context. Bukhari et al. (2015) found that Pakistani undergraduate students are quite willing to communicate in English, but they prefer to talk in small groups of friends at private places as compared to larger groups. This may indicate that the AR₁ is a response to students' discomfort with communicating in large classroom settings or to strangers. Their comfort might be based on the context and type of audiences, with an added factor of encouragement to speak. This is also echoed by Survey 1, which shows that classroom dynamics and the fear of speaking in front of a large class may affect their eagerness to speak, which is why it is important that teachers provide a supportive and comfortable communicative classroom atmosphere.

Furthermore, results of AR₂ (33.3%) suggest that only one-third of the participants consider that classroom language activities can be directly used in real life. This indicates that more context should be found in the activities that relate to real-life situations. Richards (2006) believes that CLT can help to improve problem solving, critical thinking, and motivation among learners. Thus, the elements of CLT might be brought into the classroom scenario to be used together with CALL to create effective teaching pedagogies.

Almost half of the respondents (AR₃ = 44.5%) agree or strongly agree with the item, thus showing a positive sign of a growth mindset environment. This does indicate, however, that more than one-third (37.8%) of those who responded were not in favour of seeing mistakes as a learning opportunity. Students in ESL classes are sometimes afraid of making mistakes and are easily judged based on their language ability, therefore they have fewer abilities to communicate (Paneerselvam & Mohamad, 2019). Encouraging learners to accept that errors are part of the learning process might make them look for teacher feedback so they can make further improvements in their language skills. Feedback is one of the core elements of "scaffolding for learning" (p. 1), according to Cavalcanti et al. (2021), which can support them to fulfill learning objectives and develop their self-regulation skills. So there's plenty of scope for pupils to develop their own variation of this.

Interestingly, 20% of the students think that speaking and listening are the main focus in English class, indicating that the percentage of AR₄ is quite low. This may lead to students' inability to effectively use listening and speaking skills. The study of Ali et al. (2020), in this regard, corroborates the above conclusion where they have identified certain psychological, linguistic and societal related difficulties for ESL students in Pakistan while speaking English. These problems hamper the ESL learners of Pakistan from reaching fluency in the English language. In the light of the findings, the curriculum needs to be reconsidered in terms of its focus on the various language skills, and a suitable training programme for teachers to facilitate a learner-centred approach in the classroom should be developed. The present study (AR₅ = 26.7%) would also suggest that such effective teaching would encourage peer-to-peer interaction that should be used more widely.

Exploring participants' experiences with CALL in Section C reveals engaging patterns and perceptions. The AR₆ equivalent of 40% indicates that many students regularly integrate digital platforms into their English learning. This suggests a trend toward technology adoption while hinting that a considerable 60% may lack consistent access or motivation for such tools. A study by Dahraj et al. (2020) in the Pakistani context illustrated students' perceptions of a gap in necessary technological skills to effectively utilize digital resources in the classroom. However, many students expressed willingness to attend training sessions for educational purposes. This underscores the need for CALL pedagogies in learning, mainly as the AR₇ = 60% reflects positive perceptions of CALL among learners, emphasizing its interactive and engaging nature. Such feedback aligns

with Wekerle et al. (2022), who found that digital tools can revitalize the traditional classroom dynamic. Introducing technologies in the classroom leads to increased motivation among students to engage in constructive, passive, and active activities compared to environments without technological use (Wekerle et al., 2022). Furthermore, a positive correlation exists between student participation in dynamic, productive, and engaging activities and their academic success. However, it's crucial to recognize that students' perceptions and usage of digital technologies can also be significantly shaped by the contexts provided by their educational institutions, rather than solely by individual choice or the inherent characteristics of the technologies themselves, as noted by Henderson et al. (2017). Therefore, there is a strong need to incorporate learners' perceptions and feedback on the actual benefits of CALL classrooms and to continually strive for improvement through ongoing iterations.

However, progressing to Item 8, only half of the participants ($AR_8 = 48.9\%$) concurred that computer usage aids vocabulary retention. This slightly tempered response could suggest the need for a more effective design of CALL strategies specifically catered to vocabulary enhancement. The reason is that if the instructional materials are poorly designed, the cognitive load on the students could be increased, leading to the loss of learning (Bahari et al., 2023). On the other hand, research suggests that using computers to provide multimedia annotation modes, especially when enhanced with audiovisual aids, can significantly improve vocabulary retention in L2 acquisition (Al-Seghayer, 2005). Additionally, computer-mediated glosses have positively impacted reading comprehension and vocabulary learning (Abraham, 2008). The psychology behind foreign language vocabulary acquisition also indicates that active learning facilitated by computers can enhance long-term retention (Ellis, 1995). However, these strategies will only be helpful if they specifically address the needs of the learners.

Meanwhile, Item 9's data ($AR_9 = 55.6\%$) suggests that although most participants find CALL classes more diverse and richer in content, a notable percentage may seek further diversification or enhanced content curation. The integration of technology in vocabulary acquisition and reading comprehension is effective, particularly when various aids are employed to bolster learning. Additionally, the range of information available in computer games can positively affect vocabulary retention, underscoring the potential of game-based learning for vocabulary transferability (Franciosi, 2017). Game-based Language Learning is a unique subfield of CALL that could be applicable in this context, along with CLT.

In Section C, the final item highlights a critical aspect of CALL: user comfort and digital literacy. An overwhelming percentage of participants ($AR_{10} = 80\%$) agreed they would feel comfortable with digital tools, provided they have thorough tutorials. This emphasizes the importance of ensuring both the availability and accessibility of these digital platforms for learners. In other words, nurturing digital literacy is as crucial as the tools themselves in modern pedagogy (Bawden 2001). Furthermore, Meyers et al. (2013) argue that informal learning environments play a vital role in promoting digital literacy, and comprehending these environments can provide insights into how learners engage with digital tools

Section D's findings demonstrate the significance and benefits of integrating CALL with CLT from the learners' perspective. Most students view technology as essential for adding realism to communicative activities ($AR_{11} = 55.6\%$). This likely stems from technology allowing them to simulate real-world scenarios and contexts, greatly aiding language acquisition. Digital technology-enhanced classes provide a contextual environment that supports "the students' language learning in the affective, cognitive, and

social domains,” as noted by Lee and Park (2020). This could also make communicative activities more relatable to contemporary communication methods in CLT. This is further supported by $AR_{12} = 57.8\%$, indicating that over half of the participants believe in the synergy between CALL and the principles of CLT. This perception may arise from the wide range of CALL applications that encourage communication, including chat forums, video conferencing tools, and interactive applications.

The overwhelming AR_{13} of 75.6% highlights the growing importance and reliance on digital platforms for language learning. These platforms’ flexibility and broad reach enable learners to engage with diverse groups, transcending geographical barriers. This exposure might introduce students to various accents, slang, and cultural nuances, thus enriching their practical communication skills. In this context, integrating CALL and digital tools into language teaching and learning has been a focus of numerous studies in recent years. The role of technology in English language learning has been extensively reviewed, showcasing the many ways it can support and enhance the language learning process (Ahmadi, 2018). From a developmental perspective, language and technology are regarded as tools, with their integration into language education seen as a natural progression (Warschauer, 2002).

Overall, learners’ perceptions of the potential of technology to improve specific language skills were expressed with a high agreeable rate ($AR_{14} = 82.2\%$), which is the second highest among all items in the survey. With the use of learning tools like pronunciation guides, listening tasks with different accents, or speech recognition software, students get adequate practice opportunities in Computer-Assisted Language Learning (CALL). Since all these tools tend to include feedback loops, students can get instant feedback and make corrections in real time, allowing them to acquire skills faster and more effectively. It has been found that when training to improve pronunciation, Automatic Speech Recognition (ASR) technology outperform human teachers, which confirmed the effectiveness of CALL in language learning (Golonka et al., 2014). In short, CALL classrooms have tremendous potential to improve specific language skills.

The overall AR_{15} score is 64.4 % suggesting that the majority of students perceive the integrated approach as useful for acquiring the English language. The use of interactive simulations, gamified language activities and real-time discussions for computer-assisted language learning (CALL) can enhance engagement in learning sessions. Given the global communication culture of the digital era, integrating CALL with CLT can bring the learning process in line with the current trend, thus making it more relevant (Sarfraz et al., 2015). Another study by Parvin and Salam (2015) also pointed out the effectiveness of technology in primary school classrooms in Bangladesh in English language learning, which could enhance the objectives of CLT. Moreover, the CLT-CALL integration has been identified as a way to offer the students rich communication opportunities with new technologies (Chang & Goswami, 2011). The overall positive ratings on each item indicate that students are positive and willing to consider the benefits of the integrated approach. This positive orientation can spur educators to explore the possibilities of new innovations and further develop the incorporation of CLT in CALL to continue to make language education relevant and interesting in the digital age.

Learners’ perception of combining CALL and communicative activities being sometimes overwhelming is noted in a high percentage in Section E AR_{16} (40.0%). This is echoed by Khan & Kuddus (2021) highlighting the difficulties in implementing ICT in CLT in Bangladesh. This, though, was not a majority, but it might also apply to item 10 (80%) of the respondents indicated that CALL would be easy to use and less daunting if they were given good training and tutorials. Hence, it is the role of the teacher to play a very

significant role in this aspect and well-designed tutorials, especially hands-on ones, may help ease off learners or motivate them (Eisenring & Margana, 2019).

Moreover, those technical interruptions, which may impede communicative exercises, are of great concern to a large majority ($AR_{17} = 62.2\%$). The COVID-19 lockdown and the consequent transition of most of the educational practices to online learning platforms pose a new challenge to the teacher and the learner. Earlier in the handbook, Warschauer & Meskill (2000) note that for technology to be successfully linked to language instruction, it must be integrated seamlessly and a technological infrastructure must be in place.

Another challenge highlighted by the students is the potential disconnect between digital content and classroom practices ($AR_{18} = 51.1\%$). Research supports this sentiment, discussing the need for aligning digital content with classroom practices to ensure effective language learning (Garrett, 2009). The potential disconnect between digital content and classroom practices is another challenge, as pointed out by the participants ($AR_{18} = 51.1\%$). This view is also echoed by the research, which mentions effective language learning requiring digital content to be integrated with classroom practices (Garrett, 2009).

Item 19 shows a positive sign that many participants in the survey can balance screen time with face-to-face interaction since a very low agreeable rate ($AR_{19} = 28.9\%$). But for many students it may be another worry. Karabayeva (2014) notes that a balance between technology and in-classroom interactions is significant. The findings indicated that technology can facilitate second language learning, but the human factor, face-to-face interaction, is still important. The significance of this balance in the development of technology in language learning is discussed from the developmental point of view, in which digital and traditional teaching approaches must be combined together (Warschauer, 2002).

Finally, item 20 (Section E) addresses the swift changes in technology that may present a substantial challenge to teachers and learners. Less than half of those involved ($AR_{20} = 40.0\%$) need support to catch up with technology developments. This is echoed in some research which looks at the state of the art in mobile collaborative language learning and the issues of embedding quickly changing technology (Kukulska-Hulme, 2012; Kukulska-Hulme & Viberg, 2018). However, as 60% of the respondents reported that they do not find it difficult to keep abreast of technology, it might be a positive indication that they are using the latest technology and effective pedagogies in CALL classrooms. Section F delves into "Future of CALL and CLT," and heals the sentiments of the learners in relation to the combination of the methodologies. In particular, it evaluates the learners' perceptions on the advantages of this integrated approach in terms of their motivation, confidence and future educational and career hopes.

These results, taken together, suggest that the integration of CLT-CALL is not a pedagogical choice but a learner-centred one; indeed it is a requirement of the world of communication, professionalism and motivation in the field of pre-engineering in a digital academic environment in Pakistan.

Conclusion

The present study examines whether the integration of CLT into CALL classrooms can enhance the communicative competence of ESL learners. It explores students' awareness of possible advantages, disadvantages and obstacles in the process of integrating technology into communicative activities in their English learning process. The

findings highlight the key challenges faced by Pakistani intermediate students and gathers their perspectives on the combined methodology. Most students (84.4%) believe that the integrated approach aligns with their future academic and professional goals, motivation, and self-confidence. The significance of CLT for language proficiency is underscored, along with the need to review the curriculum's balance of various language skills and appropriate teacher training frameworks. Lastly, a significant portion of students (60.0%) indicates that technology-integrated communicative teaching may influence the future of English education.

Recommendations

Based on the empirical findings of the study, some recommendations are suggested for educators, curriculum designers, and institutional policymakers interested in promoting communicative English language teaching in technology-supported education in higher education in Pakistan.

Future research should be conducted on a larger sample and include various disciplinary setting in Pakistani higher education system. This may increase the generalizability of the results of CALL-CLT integration. Furthermore, longitudinal research designs are recommended for the long-term effects of CALL-CLT integrated teaching on communication competence, motivation, and academic proficiency.

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