



Computer-Assisted Language Learning (CALL) in ESL Classrooms in India: Students' perspective

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Abstract

In the digital age, integrating technology into language education has become imperative for improving learning outcomes. Computer-Assisted Language Learning (CALL) offers potential to enhance English as a Second Language (ESL) instruction, particularly in developing nations like India. Nonetheless, ESL learners often face challenges related to motivation, infrastructure, and pedagogical integration despite the growing technological accessibility. This study explores CALL effectiveness in Indian tertiary-level ESL classrooms, focusing on its impact on student engagement and language proficiency. A quantitative research was designed and the data was collected from 80 students in English departments through a structured questionnaire. The study assessed students' perceptions of CALL. The authors analyzed benefits and challenges of CALL using descriptive statistics. The obtained data indicated students as generally benefitting from CALL. The participants mentioned increased motivation, language skills, and access to diverse learning materials. However, we found that the optimum CALL implementation was hindered by several barriers. Key barriers were unreliable internet access, technical difficulties, limited teacher training, and insufficient resources. The present study highlights the need for targeted interventions, including infrastructure development, teacher training programs, and institutional support, to maximize CALL's potential. Removing these barriers can foster more effective and engaging language learning experiences rendering CALL as a transformative tool in ESL education. The findings contribute to ongoing discussions on digital learning in ESL education and provide actionable recommendations for educators and policymakers seeking to enhance language instruction through technology.

Keywords: Computer-Assisted Language Learning (CALL), ESL, Digital Learning, Tertiary Education, Language Acquisition

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Introduction

New technologies have been an inseparable part of our and the means of everyday communication (Ytre-Arne, 2023); (Dwivedi et al., 2021). With the widespread development of information and communication technology (ICT) in our daily lives, technology provides many opportunities for language teachers and learners to benefit or suffer from. Several e-learning technologies are available for use in an educational context. Although its forms are different in different contexts based on that context's economic situations, almost all settings try to apply technologies in their education to meet the demands of learners and teachers. "Learning languages through technology has become a fact of life with important implications for all applied linguists, particularly for those concerned with facets of second language acquisition (SLA)", It is conspicuous that these days students brought up in technology-saturated environments cannot envisage a world without ICT tools. Young generations are known as the digital natives. As we move forward in an increasingly digital age, understanding how to bridge the gap between learners' eagerness to embrace technology and the practical challenges they face becomes paramount. Using new technologies in second language (L2) education is widely recognized, including online methods, systems, instruments, techniques, and new materials to make the way for L2 learners to achieve their intended educational objectives.

One pedagogy that interests many researchers is computer-assisted language learning (CALL). Successful CALL implementation leads to increased learning for both teachers and students (Wang et al., 2024); (Hasumi & Chiu, 2024). As suggested by (Li & Wang, 2024); (Shalgimbekova et al., 2024), we must consider students' attitudes towards innovative teaching/CALL methodologies, as their positive or negative attitudes may have a significant impact on the success of the language teaching and learning process. *Digital learning* has emerged as a powerful tool in the realm of language education, revolutionising the way students acquire proficiency in a new language including English. CALL is an approach to teaching and learning foreign (second) languages in which computers, computer-based resources, and information technology are used to present, reinforce, and assess the learning material is "the search for and study of applications of the computers in language teaching and learning". It involves integrating computer technology into language learning, aiming to enhance the quality and efficiency of the learning process by leveraging the optimal combination of content, methodology, and computer-assisted tools in an innovative way. CALL encompasses various computer-based resources and applications to facilitate language acquisition and proficiency development. Generally, any type of technology that can be used to learn most likely falls beneath the CALL umbrella. Thus, CALL can include the use of electronics such as CD and MP3 players (or record players in the 1960s), DVD players, tablets, smartphones and television. CALL also includes online courses and supplemental course materials used in colleges, homeschooling and distance learning.

CALL can boost the quality, efficiency, and competence of EFL learners (Dong et al., 2022). Several studies positively relate more promising results with CALL-based programs over the conventional teaching methods integration in language learning has become increasingly significant in contemporary language education.. Several hypotheses were presented for CALL superiority in EFL. Firstly, CALL caters to the digital native generation, which is inherently comfortable with technology and tends to engage more enthusiastically with computer-based learning materials. Secondly, CALL offers personalised learning experiences, adapting content and difficulty levels to individual learner needs, thereby enhancing the efficacy of instruction. Thirdly, CALL promotes autonomous learning by providing learners with the tools and resources to take control of their language acquisition process. It may be inferred that more learning occurs when information is received simultaneously in two perception modalities (vision and hearing) rather than a single one. Nonetheless, implementing CALL in ESL classrooms in developing countries faces numerous challenges related to infrastructure, access to technology, cost, technical support, content localisation,

teacher and student preparedness, pedagogical integration, and assessment. “Computers are not very good at teaching themselves, and the software does not run the lesson for the teacher.

The teacher can adapt, improve and compensate for shortcomings in the software” (Val & López-Bueno, 2024); (Hennessy et al., 2022). Even though computers and software have become more user-friendly, the complexity of computers and software necessitates extensive training for effective utilization because some individuals struggle to adapt to using computers and never fully gain confidence in their abilities, leading to frequent errors. Therefore, motivation plays a very important role in using CALL (Hameduddin & Engbers, 2022). Addressing these issues requires a multifaceted approach involving government support, international collaboration, teacher training, and developing contextually relevant CALL materials. Overcoming these challenges is essential to harness the potential of CALL-in improving ESL education in developing countries and narrowing the digital divide in language learning and teaching. Keeping this into consideration, we curated this experiment to explore the perception of ESL learners towards CALL. We hypothesised a positive correlation between CALL and efficiency of ESL learners. Our study highlighted the setbacks ESL learners face during their learning with the CALL programme. The participants further suggested potential solutions to overcome these challenges.

Methodology

Experimental Design

This study employs a quantitative research methodology to evaluate the role of CALL in enhancing English language learning outcomes. The study involves a sample size of 80 students, who were from different Departments of English at the tertiary level in India. These students were selected using simple random sampling. The research data offers valuable insights into their perceptions, attitudes, and experiences with CALL.

Data Collection and Statistical Analysis

The study utilised a structured questionnaire to collect data from ESL students. The questionnaire included twenty statements, each addressing specific benefits and challenges related to CALL in ESL classrooms in India. Students expressed their degree of concurrence with each statement by employing a five-point Likert scale, with response options encompassing "Strongly Disagree (SD)" to "Strongly Agree (SA)". The reliability of the questionnaire has been checked through SPSS 21.0. Descriptive statistics was applied to calculate the percentage of the respondents on these variables. Finally, the data with percentages was presented as graphs.

Results and Discussion

The data show varying levels of agreement or disagreement with each statement, providing insights into the students’ attitudes toward using CALL in their English language classrooms. The numerical values in the table represent the percentage of respondents who selected each response option for each statement. The percentage represents the proportion of respondents who chose each response option for each statement.

Students’ perception on benefits of using CALL in ESL classrooms

The data indicates generally positive perceptions of CALL integration in ESL classrooms, with varying levels of agreement on specific advantages. The results suggest that students appreciate the benefits of CALL (Figure 1).

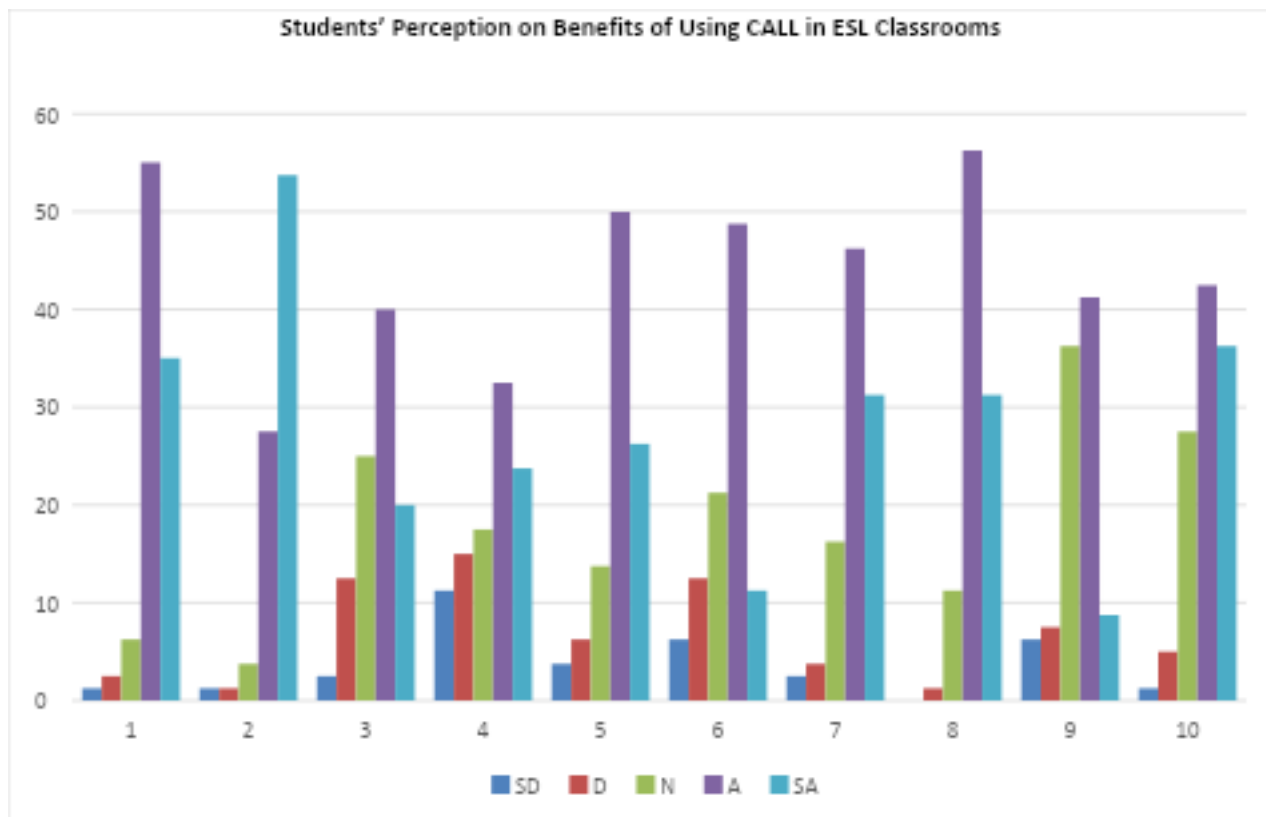


Figure 1. Students' perceptions regarding the benefits of Computer-computer-assisted language Learning (CALL) in their ESL classrooms

Statement 1: The use of CALL makes English language learning easy and effective. The majority of respondents (55%) agreed that the use of CALL makes English language learning easy and effective, while 35% strongly agreed with this statement. Only a small percentage expressed disagreement or neutrality, indicating strong overall support for this perception. These findings suggest that students perceive CALL as a beneficial tool for language acquisition.

Statement 2: CALL applications focus on students centred learning

A significant proportion of respondents (53.75%) strongly agreed that CALL applications focus on student-centred learning, with an additional 27.5% in agreement. This suggests a consensus among students that CALL applications prioritise student-centred teaching methods. The data also suggests that students appreciate the interactive and personalised nature of CALL resources.

Statement 3: Use of CALL increases students' motivation to learn English language

While 40% of respondents agreed that CALL increases students' motivation to learn English, a notable 25% were neutral on this statement. Nevertheless, a combined 20% strongly agreed, indicating that a substantial portion of students recognise the motivational benefits of CALL. This indicates that while CALL may motivate some students, it may not have the same effect on all learners.

Statement 4: CALL integration in ESL classrooms offers better opportunities for language practice
The data shows a mixed response to this statement, with 32.5% agreeing and 23.75% strongly agreeing that CALL integration offers better opportunities for language practice. However, 26.25% of respondents were neutral or disagreed, suggesting that this perception is less universally accepted. It is worth exploring why some respondents are neutral or disagree, as this can provide insights into the specific challenges or concerns related to CALL in language practice.

Statement 5: Integrating CALL into English language instruction enhances productivity and fosters academic growth

A significant majority of respondents (50%) agreed that incorporating CALL into English language education elevates productivity and promotes academic advancement, while an additional 26.25% strongly agreed. This demonstrates strong support for the idea that CALL positively impacts productivity and achievement.

Statement 6: Using CALL has improved my overall English language learning experience

While a substantial 48.75% of respondents agreed that using CALL has improved their overall English language learning experience, only 11.25% strongly agreed. This indicates that while many students find value in CALL, there is some variation in the strength of their agreement. Still, CALL can be perceived as a comprehensive tool for language development.

Statement 7: The integration of CALL in our ESL classroom has helped me improve my English language skills (listening, speaking, reading, and writing)

A majority of respondents (46.25%) agreed that the integration of CALL has helped improve their English language skills, with an additional 31.25% strongly agreeing. This suggests that CALL integration is perceived as beneficial across multiple language skills.

Statement 8: Through CALL, I can access to a wider range of language materials

The data indicates strong support for this statement, with 56.25% agreeing and 31.25% strongly agreeing. This underscores the perception that CALL offers an extensive repository of resources that can enhance language learning. This also suggests that students appreciate the access to diverse language materials facilitated by CALL.

Statement 9: I find it easy to use computer-assisted language learning tools and software in an ESL classroom

A notable 41.25% of respondents agreed that they find it easy to use CALL tools and software, while 36.25% were neutral. This suggests that while a significant portion finds it easy, there is room for improvement in usability for some students.

Statement 10: Integrating CALL in ESL classrooms is essential for improving English language learning in developing countries

A substantial 42.5% of respondents agreed that integrating CALL in ESL classrooms is essential for improving English language learning in developing countries, with an additional 36.25% strongly agreeing. This statement garnered strong support, emphasising the perceived importance of CALL integration in ESL education, especially in developing nations.

Students' perception about challenges of using CALL in ESL classrooms

The data highlight areas where improvements or further research may be needed to maximise the effectiveness of CALL integration in ESL classrooms, with varying levels of agreement on specific challenges (Figure 2).

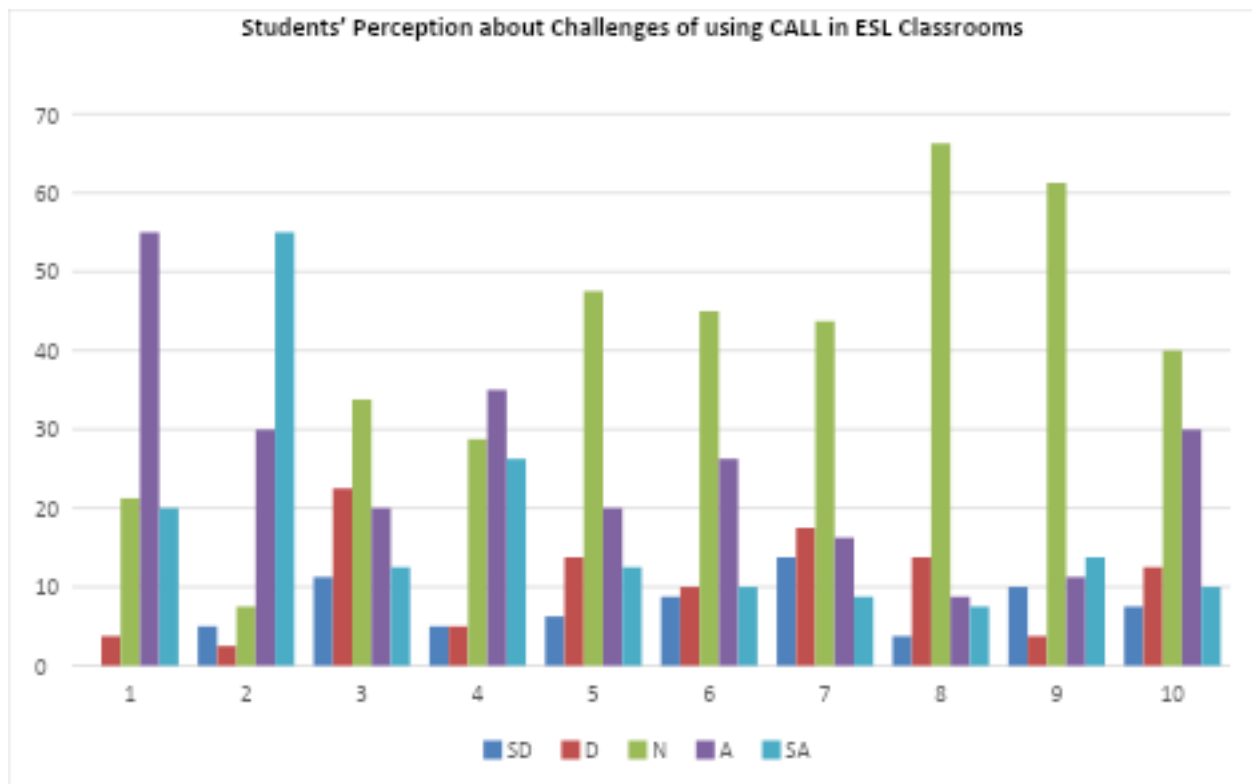


Figure 2. Responses to the survey to assess students' perceptions about the challenges of using CALL in ESL Classrooms.

Statement 1: Technical Problems Hindering the Learning Process

Participants were asked to assess whether technical problems often hindered their CALL learning process. Most respondents (55%) agreed they faced technical issues, while 20% strongly agreed. This indicates that a significant portion of students experience disruptions in their language learning due to technical problems. These issues can range from software glitches to hardware malfunctions. This indicates that technical issues are a substantial concern for ESL students and can significantly disrupt their learning experiences with CALL.

Statement 2: Unreliable Internet Connection

A considerable portion (55%) strongly agreed that the unreliable internet connection in their college hampers CALL activities. This suggests that a stable internet connection is crucial for effective CALL implementation, and the current infrastructure in the college may need improvement. An unreliable internet connection is a significant barrier to effective CALL implementation as it can disrupt online resources, multimedia content, and real-time interactions.

Statement 3: Lack of Appropriate Software and Content

This statement received mixed perceptions. The majority of the respondents (34%) were neutral, suggesting concerns about appropriate software and content availability for CALL activities. This indicates that there may be a perceived deficiency in resources tailored to ESL learning needs. This

highlights the importance of providing diverse quality materials to support CALL activities. Ensuring a rich repository of suitable materials is essential to support effective CALL integration.

Statement 4: Insufficient Access to Computers and the Internet

Around 35% of respondents noted that they did not have enough access to computers or the internet in their ESL classroom. This lack of access can hinder the incorporation of technology into language learning and limit students' exposure to online resources. This suggests that providing better access to technology resources within the classroom should be a priority to fully leverage CALL tools and resources.

Statement 5: Difficulty in Using CALL Software or Websites

More than half of the participants found that the software or websites used for CALL were often difficult to use. User-friendly interfaces and clear instructions are crucial for enhancing students' engagement with CALL activities. The data indicates the importance of user-friendly CALL tools and applications in ESL classrooms.

Statement 6: Time Consumed by CALL Activities

A substantial portion of the students (36%) felt that CALL activities took too much time to complete, potentially affecting other aspects of their ESL learning. Additionally, (45%) of students expressed neutral perceptions that CALL activities take too much time to complete, affecting other aspects of their ESL learning. Balancing the integration of technology with traditional classroom activities is important to optimize learning outcomes. There is a need to strike a balance between CALL activities and other learning objectives.

Statement 7: Distraction while Using Online Resources

Regarding distractions while using online resources for learning English, 44% of students indicated they often get distracted. Distractions can hinder concentration and impact the effectiveness of CALL-based language learning. This highlights the need for effective strategies to keep students engaged during CALL activities.

Statement 8: Motivation to Use CALL Resources

In terms of motivation, most students (66%) responded neutral to the statement, indicating that they might not receive enough motivation to use CALL resources in their language learning. Motivational factors are critical in sustaining student engagement with technology-enhanced learning tools.

Statement 9: Teacher Interest in CALL

Regarding teacher interest in using CALL, 25% of students felt that their ESL teachers were not interested in integrating technology into the classroom, whereas 61% of the students were neutral. Faculty engagement and enthusiasm can significantly influence the successful implementation of CALL.

Statement 10: Teacher Training in CALL Integration

Finally, 40% of respondents indicated that ESL teachers did not have enough training in integrating CALL into the curriculum. Teacher training is essential to equip educators with the skills and knowledge needed to effectively incorporate technology into language instruction.

Discussion

Considering the findings, the research article offers valuable insights into potential strategies to overcome the identified challenges and successfully integrate CALL into ESL classrooms in India. These strategies encompass the importance of investing in technological infrastructure, providing access to digital resources, and offering comprehensive teacher training programs that equip

educators with the skills and knowledge needed to utilize CALL tools effectively. Additionally, addressing infrastructure and connectivity issues is vital. Educational institutions should ensure reliable power supply and internet connectivity to create a conducive environment for CALL. Innovative solutions like offline digital resources and mobile-based language learning apps **(Hameduddin & Engbers, 2022); (El-Henawy & Suárez, 2023)**, can be considered in areas with connectivity issues. Furthermore, practical teacher training is essential. Educators should receive training on how to effectively integrate technology into their pedagogical practices **(Theodorio, 2024); (Akram et al., 2022); (Raave et al., 2024)**. The teacher should be aware of all the complexities of using technology in the learning environment, such as cultural, infrastructural, and structural difficulties **(Gligorea et al., 2023)**. Continuous professional development programs can help teachers adapt to the evolving landscape of language education. Further, to bridge the digital divide, policymakers and educational institutions need to invest in providing access to computers and the internet in underserved areas. This may involve government initiatives, public-private partnerships, or community-based programs. In addition, the outcomes of the study can be beneficial for course designers since they may allocate more computer activities in schools and university curricula **(Kamalov et al., 2023); (Guo et al., 2020)**. Ultimately more familiarity with computers will result in more use of the computer in ESL/EFL classes by the teachers.

The data reveals that students encounter various challenges when using CALL in their ESL classrooms. Notably, technical issues, unreliable internet connections, and the lack of access to appropriate software and hardware emerge as prominent obstacles. The usability of CALL tools, time constraints, and distractions during online learning activities are concerns shared by a significant portion of students **(Sophonhiranrak, 2021); (Dhawan, 2020); (Garlinska et al., 2023)**. Additionally, one of the main factors contributing to students' slow progress in learning English as a second language in developing countries is learners' motivation and opportunities to access a technology-based environment. Addressing these challenges is crucial for enhancing the effectiveness of CALL in ESL instruction. Additionally, maintaining a stable internet connection and providing engaging content are essential elements for successful CALL implementation. These findings emphasise the need for collaborative efforts among students, teachers, and institutions to maximise the benefits of CALL in ESL education.

Conclusion

The findings of this study underscore the potential of CALL in ESL classrooms in India while highlighting key challenges that must be addressed for successful implementation. Through the participation of eighty students from different departments of English at the Tertiary level, the study unveiled the enthusiasm among ESL learners to embrace CALL as a means of improving their English language skills. However, it also identified a myriad of challenges associated with its implementation. These challenges encompassed issues related to internet and technology accessibility, infrastructure limitations, lack of motivation and the need for effective teacher training in integrating CALL into ESL classrooms. The study also recognised the potential of CALL in enhancing the quality and efficiency of language learning by leveraging computer technology to engage and motivate students. However, it is essential to note that CALL is not a magic bullet. It is important to carefully select and implement CALL activities to ensure that they are adequate for the specific needs of the students.

Conflicts of Interest

The authors declare no conflict of interest.

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