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Computer-Assisted Language Learning: Insights from Jordanian Private University English as a Foreign Language Undergraduate and Instructors

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ABSTRACT

The advancement of educational technology has become an integral part of the contemporary educational landscape. This study aims to explore the benefits of Computer-Assisted Language Learning (CALL) in teaching English as a Foreign Language (EFL) at the undergraduate level. Grounded in Vygotsky's sociocultural theory, the study adopts a qualitative research design focused on three private universities in Jordan, providing a specific context for investigating the study's objectives and conducting an in-depth analysis of participants' experiences, perspectives, and the contextual dynamics influencing the outcomes. The target population consisted of students and instructors from English language departments, with a sample comprising 40 students and 72 instructors. Research tools, including observations and interviews, were utilized to collect data. The findings revealed key themes related to the implementation of CALL and its educational impact, highlighting best practices as well as potential challenges. The study concluded that CALL supports both autonomous and collaborative learning activities, fostering enhanced student engagement and interaction. Based on these findings, the study recommends that educators adopt a flexible approach in selecting CALL programs that align with students' needs and preferences, integrating them strategically into educational practices.

Keywords: Computer-Assisted Language Learning; English as a Foreign Language; Student Engagement

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1. Introduction

In modern times, Computer-Assisted Language Learning (CALL) has emerged as a key field that significantly influences language instruction and acquisition. CALL is a computer-based tool widely utilized for educational purposes due to its ease of operation, distribution, and storage. The study of computer-assisted language learning and teaching applications forms the basis of CALL-related research^[1]. According to Levy and Hubbard, the evolution of CALL aligns with current technological practices, where terms such as “technology” have replaced “computer,” and “enhanced” have replaced “assisted”^[2].

Egbert defines CALL as encompassing language learners who use, interact with, and study language in environments that involve technological devices. As research into language instruction and technological advancements has expanded, CALL has become a more integral part of modern educational methods^[3]. Jung explains that CALL is dedicated to exploring the relationship between language learning and technology. It includes investigations into all aspects of using computers for language instruction, ranging from internet-based platforms, virtual environments, social applications, and educational games to software specifically designed for language learning. Additionally, CALL research focuses on the four fundamental language skills: listening, speaking, reading, and writing^[4].

Gitsaki adds that CALL involves not only the software and technology available for language acquisition but also the philosophical ideas that support its implementation, research, and development. CALL has played a crucial role in the advancement of psychological and sociolinguistic approaches to language instruction, emphasizing learner engagement in meaningful, contextualized, and authentic language use.

CALL has also evolved to incorporate a wide range of online materials, Web 2.0 tools, and interactive programs, such as web pages, podcasting, online classrooms, video and audio recordings, and virtual meetings. Learning management systems (LMS) like Moodle, Canvas, and various interactive platforms, along with desktop and tablet computers, have made CALL more sophisticated and versatile. These tools can be used for language learning both inside and outside the classroom, making CALL a dynamic and comprehensive educational approach.

The current research focuses on investigating the ad-

vantages of CALL in English as a Foreign Language (EFL) instruction at Jordanian private universities. As noted by Warschauer and Meskill^[5-7], almost every language learning and teaching activity now involves the use of some form of technology. This research explores the benefits of CALL for vocabulary development, podcasts, and recorded materials for listening and speaking, as well as platforms like Google Documents for improving writing skills. It is believed that this investigation will further our understanding of CALL and its application in EFL learning, particularly in the Jordanian context.

Despite the substantial growth in CALL-related research, there is a need for a clearer focus on the practical applications and advantages of CALL within specific educational contexts. The current research aims to address this gap by investigating the advantages of CALL in English as a Foreign Language (EFL) instruction at Jordanian private universities. Specifically, this study seeks to answer the following research question: What are the advantages of implementing CALL in EFL instruction, particularly in improving the core language skills of listening, speaking, reading, and writing?

This research also examines the benefits of CALL for vocabulary development, podcasts, and recorded materials for listening and speaking, as well as platforms like Google Documents for enhancing writing skills. By addressing these aspects, the study aims to provide insights into the effective integration of CALL in EFL instruction and to contribute to a deeper understanding of its potential within the Jordanian educational system.

2. Literature Review

Integrating technology into education has been widely recognized as an effective strategy to enhance learner engagement and improve key language skills such as text comprehension, communication, and listening. Studies^[8-10] highlight how technology supports English as a Foreign Language (EFL) instruction by offering appealing and effective approaches. However, technology alone cannot suffice as a teaching tool. As Schwartz and Pollishuke^[11] emphasize, the effectiveness of technology in EFL classrooms depends on its purposeful use by educators. This requires setting clear objectives, possessing a deep understanding of the cur-

riculum, and employing appropriate teaching strategies that build on students' prior knowledge.

In addition to enhancing engagement, technology has a profound impact on reading and writing skills. Rodinadze and Zarbazoa demonstrate that the intuitive nature of technological tools facilitates skill development in these areas. Moreover, technology provides quick and convenient access to educational resources for both teachers and learners, further supporting the learning process^[12]. Cutter^[13] highlights that EFL students are particularly motivated to use digital devices to improve their language proficiency.

Information and Communication Technology (ICT) takes this a step further by offering personalized learning experiences tailored to individual needs and skill levels. Schrooten underscores the multidimensional benefits of integrating ICT into language instruction, making learning more dynamic and comprehensive^[14].

Recent studies provide additional insights into the advantages of technology in language education. Dogan examines the effects of traditional and online education on students' anxiety related to negative emotions in EFL settings, finding that online education can alleviate such challenges^[15]. Similarly, Khojah and Thomas reveal that incorporating electronic devices into project-based learning activities enhances students' engagement with language skills^[16].

Collectively, the literature demonstrates that ICT has significantly influenced teaching, learning, and research. By delivering dynamic, engaging, and relevant content, technology enhances the overall educational experience, particularly in fostering language comprehension and practical skill application. This body of evidence underscores the transformative potential of ICT in modern language education.

3. Theoretical Framework

The present investigation employed Sociocultural Theory^[17] as its theoretical framework. As highlighted by Wells and Warschauer^[18, 19], Sociocultural Theory emphasizes learning as embedded within cultural and social contexts, viewing students in relation to the content they encounter and the interpersonal environments in which learning occurs. The concept of "scaffolding," introduced by Bruner^[20], was central to this research. Often interpreted as social support, scaffolding refers to the continuous assistance provided,

particularly by families, to young children in learning their native language through communicative interactions.

Collaborative Learning (CL) is one way to offer students scaffolding, as noted by Lantolf^[21]. In such settings, language knowledge can be co-constructed through collaboration. The idea behind scaffolding is that an adult, teacher, or peer with more advanced knowledge assists a student who lacks that knowledge in completing tasks they might not be able to accomplish independently. This concept also extends to any resources students use to aid learning, such as grammar guides, dictionaries, traditional teaching methods like "Initiation-Response-Feedback," or feedback provided by instructors.

This study explored the integration of technology as a form of scaffolding to support both instructors and students in language acquisition. CALL was employed as an instructional method, with an emphasis on fostering CL environments. The scaffolding framework can also be extended to CALL studies that focus on ELL (English Language Learner) engagement in collaborative efforts.

4. Research Methodology

This study employed a **qualitative research design**, focusing on exploring the impact of Computer-Assisted Language Learning (CALL) tools on enhancing EFL students' language skills. As Creswell^[22] suggests, qualitative research is particularly suited to interpreting individual experiences and understanding developmental changes within specific educational contexts. The methodology aimed to examine how students utilized CALL tools to improve key language skills, such as vocabulary development, writing, reading, listening, and speaking, through platforms like Google Documents, Moodle Readers, podcasting, and toontastic 3D recordings.

Participants

The study was conducted at a Jordanian private university, selected due to its active integration of technology in EFL classrooms. The **population** included EFL instructors and undergraduates from the university's English department. Using **purposive sampling**, 40 EFL undergraduates and 72 EFL instructors were selected to ensure participants with direct experience in CALL-based learning were included. This method was justified as it enabled the selection of partici-

pants who could provide rich, relevant, and diverse insights into the use of CALL tools.

Data Collection Methods

(1) Semi-Structured Interviews: Recorded interviews were conducted with both instructors and students to gather in-depth insights into their experiences and perceptions of CALL tools. The semi-structured format allowed flexibility while ensuring that key topics, such as the benefits and challenges of CALL tools, were addressed.

(2) Observation Sessions: Observation plans were used to monitor CALL activities in real-time, focusing on how students interacted with tools like Google Documents for writing, Moodle Readers for reading, and podcasting for listening and speaking.

(3) Reflective Journals: After each CALL session, students were asked to maintain reflective journals, documenting their preferences, opinions, and experiences. This provided additional qualitative data on the usability and effectiveness of the tools from the learners' perspectives.

Data Analysis

The collected data were analyzed using Braun and Clarke's^[23] **thematic analysis framework**, which involves a six-phase approach: familiarizing with the data, generating initial codes, searching for themes, reviewing themes, defining themes, and producing a report. This systematic approach ensured a thorough examination of the data to identify and interpret patterns and themes related to the effectiveness of CALL tools.

Validity and Reliability

To ensure **validity**, triangulation was applied by combining multiple data sources (interviews, observations, and journals), which provided a comprehensive understanding of the research questions. Additionally, participants reviewed interview transcripts to verify the accuracy of the recorded responses.

Reliability was enhanced through consistent data collection procedures and clear documentation of the research process. The use of established frameworks, such as Creswell's qualitative methodology guidelines and Braun and Clarke's thematic analysis, further supported the dependability of the findings.

Procedures The study was conducted over an **eight-**

week period, during which CALL sessions were integrated into regular EFL classroom activities. Each session was designed to target specific language skills using different CALL tools. At the end of the study, semi-structured interviews with instructors and students were conducted to gain holistic insights into their experiences and the perceived benefits of CALL tools.

5. Results and Discussion

The findings of this study align with the theoretical literature discussed earlier, reinforcing the significance of Computer-Assisted Language Learning (CALL) in enhancing both the teaching and learning of English as a Foreign Language (EFL). Several studies, including those by^[8-10] emphasize the positive impact of integrating technology in educational settings, particularly in fostering learner engagement and enhancing language comprehension. The current investigation contributes to this body of knowledge by highlighting how CALL technologies, such as Google Documents, podcasts, and Moodle Readers, effectively support EFL undergraduates in improving their language skills.

The study's focus on the role of CALL in motivating EFL students aligns with the findings of Cutter^[13], who noted that digital tools, particularly podcasts and interactive platforms, serve as strong motivators for language learners. The integration of these tools in the present research—particularly podcasts for listening and speaking practice resonates with the research by Zarbazoia and Rodinadze^[12], who argued that the intuitive nature of technological tools enhances students' abilities to master key language skills. This study reinforces these findings by demonstrating that Moodle Readers provided an engaging, self-paced approach to improving reading comprehension in the EFL classroom.

Additionally, the study's investigation into collaborative learning (CL) through CALL is well-supported by Schrooten^[14], who identified ICT as a tool for fostering collaborative, multidimensional learning experiences. The results indicate that the use of Google Documents for collaborative writing activities contributed to a more dynamic and interactive classroom environment, where students could work together to improve their language skills, supporting the theoretical framework that CALL facilitates collaborative learning in EFL contexts.

The evaluation of CALL, as conducted in this study, reflects the critical perspective offered by Schwartz and Polishuke^[11], who argued that technology should be used with clear educational objectives and in alignment with curriculum goals. The findings suggest that CALL's effectiveness is contingent on its strategic implementation, which supports the claim that merely using technology without a thoughtful approach does not automatically lead to successful outcomes. This emphasizes the importance of training educators to evaluate and adapt CALL tools to their specific teaching objectives, as also highlighted in the literature by Levy and Hubbard^[2].

In sum, the study's findings are consistent with the theoretical literature on CALL, supporting the view that when effectively integrated into EFL instruction, CALL technologies can enhance motivation, facilitate collaborative learning, and improve language skills. The results also underscore the importance of strategic planning and clear pedagogical goals in maximizing the benefits of CALL, reinforcing key arguments made by both early and recent studies in the field.

5.1. CALL on the Self-Assurance and Motivation of EFL Undergraduates

The psychological state of English as a Foreign Language (EFL) students, such as motivation, significantly affects their learning. According to Zhou^[10] motivation is defined as the readiness to engage and exert effort to complete a specific task. Students who lack motivation to learn are less likely to collaborate, take responsibility, or fully dedicate themselves to learning English as a foreign language. Furthermore, motivation is considered a critical affective state that influences proficiency in language acquisition.

The findings revealed that the use of computer-assisted language learning applications, such as Google Documents and Moodle, led to significant improvements in learners' achievements regarding the teaching and acquisition of English language skills. The application of CALL technology is linked to enhancing motivation for learning through notable improvements in performance.

Studies have shown that the use of podcasts has contributed to improving listening and speaking skills, as these media encourage students to learn how to communicate. Podcasts bring students closer to the language they are studying, enhancing their motivation. Through self-recording, students

were able to develop their confidence in communicating in English. This indicates that CALL provides an educational environment that meets the intellectual, psychological, and social needs of EFL students.

Teachers expressed how the use of computers in the learning environment made students feel less anxious and more comfortable interacting with each other and using the language. Several teachers explained how students enhanced their self-confidence in their technological skills. By utilizing technology, students could experiment with and adapt their public communication skills, contributing to building confidence in their abilities.

The results showed that how the teacher organizes the classroom significantly impacts students' self-confidence and motivation. The findings indicate that the instructional strategies chosen by the teacher in speaking skills lessons should engage students and foster a positive learning environment. The researcher observed that hesitant EFL students were encouraged to participate in conversation through podcasts. This was achieved by providing opportunities for students to create and share their personal podcasts with peers. Additionally, the use of CALL helped create a safe and authentic educational environment that bolstered EFL students' self-confidence.

Some students managed to record videos of themselves at home and send them to the researcher, demonstrating how CALL can assist students in focusing and boosting their confidence when speaking English through podcasts. As a result, EFL students believe they can enhance their confidence in speaking English through podcast usage. During interviews, students indicated that podcasts were extremely beneficial for improving their speaking skills and providing opportunities for them to express themselves more confidently.

Podcasts proved effective in enhancing vocabulary and pronunciation learning, as users could capture, replay, and delete any episodes they found unsatisfactory. This is also evident in the development of digital storytelling. Podcasts can provide a space for reflection and correction regarding EFL students' speaking proficiency. Students enjoyed recording what they said, as they mimicked the speech patterns of native speakers, including pronunciation, fluency, and accent. Subsequently, the opportunity was available for the teacher and classmates to listen to the recorded audio.

Group support, whether academic or emotional, con-

tributed to enhancing EFL students' learning and self-confidence. Thus, CALL activities provided teachers with a means to support students in developing their sense of dignity and confidence in their ability to learn the language and comprehend the content. Therefore, the increasing motivation of EFL students, who become more self-assured, leads to an improvement in their speaking skills.

The findings also affirm that the use of CALL facilitates the completion of designated tasks in language learning, contributing to increased student engagement in learning English. Recording podcasts has become a preferred method for enhancing language learning in traditional environments. Given that podcasts are user-friendly, EFL students enjoyed interacting with them, indicating that CALL applications are a crucial element in enhancing motivation to learn the language.

Devices such as computers and tablets provide a risk-free environment that encourages EFL students to explore and discover the language. By using computer-mediated communication tools, such as online storytelling projects with tools like Toontastic 3D, opportunities for deep reflection are provided, which are often difficult to achieve through textual assignments. Because students were not pressed for time during their descriptions, they could think through what they wanted to say before capturing it, as well as go back, edit, and re-record, allowing for contemplation.

The use of electronic storytelling methods helps EFL students practice new vocabulary, enhance listening skills, verbal proficiency, and boost self-confidence and digital knowledge. In the eighth week of the semester, EFL students shared their opinions on electronic storytelling during a one-on-one interview with the researcher, affirming that this was a great opportunity to improve their speaking skills, as they had to record it several times until it sounded perfect, providing them with a valuable learning experience.

Previous comments indicate that CALL educational environments play a vital role in enhancing the motivation and success of EFL students in language learning. Consequently, EFL students view podcasts as an essential learning tool, creating the same motivation and growth as other resources, granting CALL services a similar status as an educational tool.

By leveraging CALL programs, EFL students can practice the language in real contexts rather than merely forming

grammatically correct hypothetical sentences. Podcasts allow EFL students to practice English, particularly through conversation, encouraging them to communicate during lessons and teaching them how to seek opportunities for speaking practice outside the learning environment.

Studies have shown that using tools like Moodle Reader can enhance motivation and engage students in developing reading skills. The results indicate that using Moodle Readers and other CALL applications enhances student motivation and encourages them to develop their reading and communication skills. By utilizing Moodle Readers, students were motivated to explore the depth of texts, especially when using digital resources to engage with the content.

The researcher demonstrated how to use Moodle Readers to present learning tasks to EFL students, noting that these programs can enhance learning opportunities and inspire students. The use of Moodle Readers encourages EFL students to engage with a greater understanding and broaden their knowledge. By employing texts alongside technology, literature can provide the necessary support for students, as students are much more motivated through CALL tools than is possible with traditional reading methods.

The researcher showed that the use of information and communication technology has a tremendous positive impact on student learning, as the integration of texts with technological tools such as Moodle Readers enhances reading skill development. Moodle Readers improve EFL students' reading skills, which is crucial for their linguistic growth. These findings align with Krashen's^[24] natural theory, which suggests that literature has a positive impact on EFL learning and enhances students' confidence and abilities.

Digital programs and innovative classrooms create more effective learning environments, enhancing students' motivation to learn English. The research demonstrates that combining texts with technological tools increases students' enthusiasm for learning the language. In the context of traditional education, achieving the necessary motivation is difficult when relying solely on conventional teaching methods.

The research indicates that using tools like Google Documents enhances writing skill development, as it provides students with options for self-directed learning throughout the educational process. Google Documents offers features such as word searches in the electronic encyclopedia, find-

ing synonyms, and verifying grammar, which supports the development of writing skills.

Overall, the results show that EFL students engage more actively with contextual tasks presented through CALL tools, motivating them to participate more compared to traditional rehearsal exercises. The use of Google Documents enhances students' sense of autonomy and motivation, facilitating their continued learning.

In conclusion, CALL programs provide the necessary support for EFL students, enabling them to enhance their self-confidence and increase their enthusiasm for learning, resulting in significant improvements in their English proficiency.

5.2. CALL in CL

The remainder of this chapter is founded on the principles of sociocultural theory, which emphasizes that social participation and cooperation between language learners and their social environments parents, teachers, and peers are essential to EFL procedure. Sociocultural strategies to conciliation along with ZPD support this method of EFL learning. The results of the research show that employing CALL exercises promotes CL, which constitutes one of its advantages. Constructionist methodology and sociocultural theory are the foundations of CL. Vygotsky^[17] posits that intellectual growth arises from collaboration among students throughout joint endeavors to improve their ZPD, which is the distinction within which an apprentice may accomplish on their own as opposed to what they can succeed in with the help of additional competent and knowledgeable peers.

In the CL environment, students collaborate with small teams to guarantee that all parties contribute to events or tasks associated with learning. A strong and authentic teaching strategy that engages, enhances, and leads students' learning is CL. Students in a team can collaborate on an ensemble project or undertake individual projects that contribute to a collective final product. In the course of the research, CL was defined as the process by which those involved in the educational environment employ technological devices as a shared tool to share and develop information. Consequently, CL is a method of collaborative instruction that stresses understanding that is assisted by students as opposed to the instructor.

The examination of CALL programmes, including

Google Documents, podcasts, Moodle readers, and toon-tastic 3D recording, CALL acquisition of vocabulary, and others, in helping with the advancement of EFL proficiency, showed that every one of these tools provides students with unrestricted and complimentary possibilities to engage in the educational process, without the typical disadvantages of people departing enthusiasm due to a lack of encouragement or becoming unwilling to handle the demands of the curriculum.

5.3. CL Videos

The study investigated the effectiveness of utilizing videos for vocabulary instruction through Computer-Assisted Language Learning (CALL) and found that collaborative work significantly enhanced comprehension, as supported by post-test results. Over a six-week instructional period, a total of six videos were presented to familiarize students with the legal obligations and rights of children, cultural and religious holidays, telephone protocols, emergency services, and local tourist attractions. The primary objective of incorporating videos into the classroom was to provide students with accessible material^[24].

The researcher discovered that integrating extra-linguistic information through videos enhanced students' language proficiency. When students viewed the videos, they could utilize the extra-linguistic elements and their prior knowledge to better comprehend the content. Subsequently, students were organized into teams of three and tasked with interpreting the videos they had watched.

The findings indicated that students demonstrated increased engagement and motivation when working in a collaborative environment. Effective CALL instruction for vocabulary enables instructors to empower students to create their own learning experiences. CALL programs provide ample opportunities for teamwork. Following the video presentations, students participated in group discussions aimed at sharing insights. The research revealed that collaborative discussions focused on interpreting meanings facilitated social learning and enhanced students' understanding. Thus, collaborative learning (CL) plays a crucial role in fostering engaged learning^[25, 26].

In the educational context, the collaborative aspect of CL also nurtures interpersonal connections. University undergraduates benefited from this assignment as they engaged

with English as a Foreign Language (EFL) in a practical manner. Moreover, the researcher noted that students interacted with their peers with reduced anxiety. The results reflect the characteristics of sociocultural theory identified by Lantolf^[27] including collaborative engagement, facilitation, Zone of Proximal Development (ZPD), and negotiation. Students' participation in collective conversations after watching videos enhances their interpersonal skills and teamwork in the learning environment, where classmates provide support, thereby facilitating access to the ZPD.

Consequently, cooperative CALL activities positively impact students' English vocabulary. The investigation indicates that video viewing in class promoted greater collaborative efforts, enabling students to explore new interests and acquire vocabulary in English. By the seventh week, students exhibited increasing enthusiasm for utilizing virtual learning environments, which can serve as effective tools for acquiring English both within and beyond the classroom. The video content presented in each session was visually engaging and contextually relevant, incorporating implicit cues that helped bridge understanding gaps, thereby enhancing students' interest in the material being taught.

5.4. Podcast, Digital Storytelling, and Collaborative Learning (CL)

This examination explored the integration of podcasts to enhance speaking and listening skills. Educational institutions functioning as knowledge-acquiring communities, where students alternate in producing information, engaging in negotiation, and benefiting from diverse perspectives, foster substantial intellectual enthusiasm. In classes focused on listening and speaking skills, learners collaborated in small groups on structured tasks related to pre-, during-, and post-listening and speaking stages, dividing their efforts equitably. They then came together to engage meaningfully with the podcast, video content, and images they had encountered.

The research indicates that listening to podcasts facilitated collaboration among students, enabling them to generate innovative ideas. During their final days, students engaged in interactions that prompted them to utilize the target language while analyzing the images presented to them. Consequently, collaborative learning provided students with opportunities to complete assignments cooperatively, enhancing both their individual performance and the learning of

others. Motivated by the desire for team success, students from various groups encouraged each other to collaborate on learning tasks and supported one another's homework. The podcast encouraged students to engage in meaningful debates, enabling them to argue, contest, and critique others' viewpoints, which highlighted the interpersonal aspect of knowledge acquisition and ultimately fostered support among small team members.

Additionally, the researcher requested students to produce learner-created podcasts. Findings revealed that students could construct and convey content by reporting on course-related subjects through podcasts. This medium fostered better self-reflection, independence, richer interpersonal interactions, enhanced self-awareness, and improved creativity. In one-on-one interviews, students expressed appreciation for the opportunity to create unique products, experiment with technological advances, and engage with a new medium. They valued assignments that allowed for casual interaction around educational topics instead of traditional writing tasks. Participants in the learner-created podcasts showcased their individuality and lightheartedness, while also developing concise and original presentations through their videos. In summary, podcasting provided respondents with opportunities for information construction, debate formulation, and expressive creativity. The research findings indicated that the collaborative learning aspect of podcasts was beneficial as users listened to each other. When engaging with additional recorded videos, participants expressed sentiments such as:

"Reading each other's work was not as enjoyable as podcasting."

"It was enjoyable to focus on hearing the other person's voice."

The aforementioned information indicates that participants valued the opportunity to spend time listening just as much as reading. Furthermore, the podcasts produced by their peers served as mentors for the registrants' subsequent writing and thought processes. One participant noted:

"I found the way Team X structured their narrative appealing. I believe that X's willingness to discuss examples of child labor improved their presentation, making it very relevant."

Consequently, respondents felt empowered to observe (or perceive) effective strategies for thinking and express-

ing themselves, considering how they could apply similar techniques in their own assignments. As a result, the podcast assignments encouraged collaborative learning by allowing participants to work together beyond traditional written documents. They engaged in collaborative tasks and had fruitful discussions on assigned topics, including slavery, urban civilization, and celebrations. Moreover, the podcast assignments prompted participants to refine their essential listening skills, requiring them to adapt to hearing different voices for extended periods and engage in discussions before they could respond by referencing each other's podcasts. Through these extended listening exercises, individuals were able to broaden their perspectives on the subject matter and experience various styles of expression and thought.

Finally, perhaps most significantly, the assigned recreational song listening prompted respondents to articulate their feelings about the music being discussed. The podcast created a platform for listeners to express their sentiments regarding the music they encountered, benefiting from the opportunity to consider each other's feelings. In brief, the podcast assignments helped foster a community associated with liberatory pedagogies. The research findings indicate that participants established close interpersonal networks through podcasting, grounded in cooperation, attentive listening, and the exchange of thoughts and emotions.

This investigation illustrates that promoting group thought within the educational environment makes collaborative learning especially effective in retaining students' conceptual knowledge. Thus, the establishment of a liberal learning environment that enables students to build a classroom community heavily relies on the use of Computer-Assisted Language Learning (CALL) programs through collaborative learning. The research indicates that engaging with collaborative learning via podcasts created an educational community where students could show curiosity, perceive others' perspectives, and acknowledge the presence of their peers. The development of online narratives using Toontastic 3D recording exemplifies this. Students were asked to create stories about their families, weddings they attended, and their rights as children in teams of three. The narratives were intended to last three to five minutes, with opportunities for weekly re-recording and reflection on their tracks. Following this, students were instructed to watch no fewer than two recordings created by their colleagues on

Toontastic 3D. The videos provided students with a context and opportunity to interact and communicate in English.

The results indicated that online narratives engaged students with the subject matter by boosting their confidence in their ability to communicate in English, as well as their enthusiasm and excitement. One-on-one survey findings revealed that online narratives facilitate 21st-century education by enabling engaging collaborative learning that encourages students to use English. The investigation found that during online narratives, participants collaborated, engaged, exchanged ideas, assisted, and inspired one another, resulting in a significant and effective communal approach to enhancing students' communication skills.

The findings align with the assertions of Krashen^[24], which state that collaboration in online narratives enhances learners' skills by compelling them to work together to gather information and participate in a technologically advanced setting for skill and knowledge development. The research highlights that students can collaboratively create and organize audiovisual materials for narratives through digital storytelling exercises, including peer discussions about narratives and role-playing with an experienced third party.

The results showed that collaborative digital storytelling, particularly for upper primary students, increased motivation and engagement. Students collaborated to express their thoughts in the digital storytelling assignments, an essential component of learning informed by sociocultural theories. Consequently, learners had the opportunity to develop their group communication skills through digital storytelling projects, which improved group dynamics and collaborative learning.

Furthermore, collaborative activities provide students of all ability levels the opportunity to work toward common objectives, enhancing student engagement through diverse participation styles. Students could collaborate in smaller groups by employing digital narratives. Following the administration of the digital narratives, post-test results demonstrated a significant improvement in performance. These outcomes can be attributed to how engaging with digital storytelling endeavors ultimately enables participants to enhance their speaking skills through idea organization, perspective sharing, evaluation, and data synthesis. The mode of communication employed by participants mirrored natural interactions, and students were required to actively engage in

discussions and casual interactions, as well as collaborative digital storytelling exercises that improved their comprehension and interpersonal skills.

The results are consistent with Shahala's^[28] research, which illustrates how digital narratives can be utilized to integrate educational activities and teaching materials to create more captivating and engaging learning environments. Constructivism, which serves as a powerful tool for integrating digital media into imaginative educational activities, underpins the application of online narratives in classroom instruction^[29]. Consequently, collaborative learning fosters the development of interpersonal, teamwork, and communication skills—skills that are not only language-oriented but also practical in today's increasingly globalized world. Utilizing technology in the educational setting further prepares students for the modern future.

5.5. Moodle Readers and CL

The implementation of Moodle readers has been highlighted as a means to enhance interaction during instruction and improve reading abilities. The exercises facilitated by the Moodle Reader allowed for peer-based activities alongside traditional instructional methods. Throughout the study, the Moodle-based initiatives proved beneficial and enjoyable, encouraging students to engage with reading English as a Foreign Language (EFL) materials both within and outside the educational setting, while also providing an effective platform for EFL feedback. These findings support Jones's^[30] assertion that collaborative learning assignments enhance learning both inside and outside the classroom by enabling students to express their viewpoints, extend their understanding beyond what they could achieve independently, and complete tasks more effectively.

In this study, the distribution of scores significantly increased students' enthusiasm and willingness to complete their assignments, having a substantial impact on their levels of engagement and interaction with one another. The report indicates that teams utilizing Moodle Reader provide an additional dimension to experiential learning by offering student groups a dedicated space for discussion and collaboration. The extent to which teamwork can be facilitated is determined by the instructor, based on the objectives of the engagement.

Participants expressed general satisfaction with the

Moodle program due to their peer interactions with the material. Robb^[31] notes that digital reading education, including that offered by Moodle Reader, enables students to access books they might not have otherwise engaged with, fostering increased involvement with texts, consideration of diverse needs, and enhanced autonomy.

The research indicates that employing technological resources such as Moodle Reader aids students struggling with reading or EFL learners by enhancing their understanding of phonology and motivating reluctant readers to develop a reading habit. Therefore, educators are encouraged to utilize technological tools as a corrective measure to transform students' negative perceptions of reading English literature. According to students, the Moodle Reader was instrumental in their development, igniting a strong desire to continue reading. They reported that features such as audio reading, highlighting, visuals, and sound effects helped them regain their confidence and enthusiasm for English. Reading content remains the primary avenue through which students can acquire a significant amount of comprehensible input, and Moodle Reader provides them with this essential opportunity.

5.6. Google Documents for Writing Skills in CL

The investigation assessed how well an interactive writing exercise conducted outside of the classroom employing Google Documents worked. The results of the research showed that Google Documents makes it possible for collaborative endeavors and tasks to take place within as well as outside of the classroom. The research project concentrated on the lowest abilities like selecting words and typography. The results showed that by combining online communication spreadsheet, text editor, and display applications, students may work together with greater efficiency on tasks related to writing. Following are a few of their opinions:

I gained experience in teamwork, communication, and negotiation, as well as active listening. Employing Google Documents to practice writing provides an engaging and stress-free way for students to learn EFL.

The study found that the classroom was more successful, engaging, and productive when Google Docs resources were used. The students in their groups could collaborate, edit, and communicate with each other using document production tools. The students were divided into groups of three and given writing assignments to complete on Google Docs.

The capacity of the learner to share, edit, and collaborate in a single virtual workplace demonstrated the value of Google Documents. The research found that Google Documents motivated the sharing of documents among classmates, provided teamwork considerably easier, and was uncomplicated to operate. These findings are further reinforced by the comments that follow:

Google Documents is a simple and engaging means to communicate, and it assists in maintaining the work of everyone organized by giving an efficient means for teammates to share and edit what others have created.

As a result, Google Documents promotes communally organised exchange of knowledge among students in teams, where each student is responsible for their own education and inspired to advance the education of others. With the help of Google Documents, students were able to participate actively and meaningfully in writing assignments by employing a range of tactics that promoted participation. The students collaborated in small teams to achieve a common objective. With its intelligent grammar-checking checking of spelling and its ability to share and remark for quick input, Google Documents facilitated teamwork.

The results also indicated that Google Documents users participated intellectually by posing queries that required clarification, offering illustrations and reasons, approving or disapproving changes, offering rationales and clarification, ensuring both explicit and unconscious updates, along with making references to glossaries and Google assets. The results align with the research conducted by Sayed et al.^[6], which found learners believed that Google Documents made learning easier and promoted organization.

5.7. CALL in Evaluation

The educational environment encompasses evaluation and feedback, with one of the instructor's responsibilities being to assess the extent to which each learner has met comprehension requirements in a specific subject. The results of the research indicated that computer applications provided students with opportunities for self-assessment. Villada^[32] expressed a positive outlook on the potential for evaluation through computer applications in the future. Participants reported significant satisfaction with tools like the Moodle Reader, as the assessments it offered were perceived as more accessible both geographically and in terms of scheduling.

Additionally, the Moodle Reader addressed students' interests and needs within the digital framework, enhancing their reading autonomy, providing immediate feedback and grades, and exposing them to more English as a Foreign Language (EFL) material. These factors collectively motivated students to complete reading skills exercises.

During interviews, students provided further insights about their experiences with the Moodle Reader. They noted the simplicity of submitting assignments and receiving prompt grades, stating that answering the numerous questions on the platform was straightforward. Consequently, the researcher observed that students within their respective teams endeavored to complete as many Moodle Reader questions as possible. As a result, students' curiosity and engagement in reading were heightened when reading skills were taught through the Moodle Reader. Given the younger demographic's increased emphasis on internet usage, the Moodle Reader evaluations aligned well with the participants' interests and needs, incentivizing learners regardless of their motivation level to complete the assessments through the online Moodle system. The research concluded that students' enthusiasm was a critical factor in their successful completion of assessments.

An investigation into the use of electronic storytelling for enhancing speaking abilities revealed that students' collaboration with peers for various reasons encouraged them to share their own narratives, thereby improving collaborative learning (CL). The research identified social interaction, collaborative teamwork, and autonomous learning as key elements emerging during the electronic storytelling process. Through collaborative feedback, students enhanced their interpersonal skills, with immediate input from the researcher and peers contributing to significant improvements in post-test performance.

Computer applications, due to their accessibility in diverse contexts, can leverage situational factors to enhance the learning activity being studied. According to Rababah et al.^[7], context-aware computer-assisted language learning (CALL) devices can assist learners by enabling them to concentrate on the topic at hand and providing necessary support when required. Consequently, during the storytelling process, students learned to plan, collaborate, and interact through mutual correction and self-directed learning.

By the seventh week of the study, participants ex-

hibited increased confidence in their communication skills. Peterson^[33] assessed that students derive motivation from podcasts, as they offer practical assignments that require problem-solving, comparison, and hypothesis-building related to real-world scenarios. Students found their podcast activities relevant, engaging, and significant, which increased their enthusiasm for learning. They expressed enjoyment in using podcasts to develop speaking and listening skills, asserting that listening to podcasts enhanced their proficiency in both areas.

One student remarked, “I had a great time learning through podcasts. We could hear what we said and correct our mistakes. We polished the last video and removed the ones we had already made.” Such statements indicated that utilizing podcasts to teach speaking and listening provided valuable educational experiences, thus improving students’ perceptions of the effective application of podcasts in language instruction. The combination of podcasts and peer interactions proved beneficial for developing EFL speaking skills. Furthermore, task-oriented exercises that allowed students to capture their speech provided an effective means for them to listen and adjust their pronunciation as needed, thereby enhancing their speaking abilities. This suggests that students can interact with computer applications and software that recognize voices to improve their spoken language skills^[34].

Utilizing Google Docs for writing tasks enabled learners to identify and anticipate syntactic errors through tools like grammar checks and autocorrections, which encouraged them to revise their writing. The use of Google Docs, in this regard, promoted collaborative writing. Students could review their own writings and those of their peers, providing constructive feedback within their teams. This approach motivated students to collaborate in EFL writing, facilitating their progression toward higher proficiency levels.

6. Conclusions

This study examined the impact of Computer-Assisted Language Learning (CALL) on enhancing the language skills of English as a Foreign Language (EFL) undergraduates. The findings underscore the potential of CALL to act as a transformative tool in language instruction when implemented with careful planning and strategic integration. Tools such

as Google Documents, podcasts, and Moodle Reader were found to be particularly effective in fostering student engagement, providing real-life applications of language skills, and serving as motivators for language learning.

A key insight from the study is the necessity for instructors to not only embrace CALL tools but also to possess a deep understanding of their appropriate application. Effective use of CALL requires educators to carefully evaluate how, when, and what technologies to integrate into their teaching practices. Simply incorporating electronic devices without strategic planning risks undermining the potential benefits. Instead, leveraging CALL tools with clear instructional objectives and tailored strategies can create a dynamic and immersive learning environment that inspires students to advance their language abilities.

The findings also suggest that as CALL technologies continue to evolve, they are likely to enable innovative methods for both teaching and assessment. This technological progress holds the potential to enhance EFL instruction by fostering greater student enthusiasm, engagement, and skill development. Furthermore, recognizing the growing relevance of digital tools in education, the study emphasizes the importance of equipping both educators and learners with the skills and resources needed to effectively utilize these tools.

Given the promising outcomes of CALL in this study, educational institutions are encouraged to integrate CALL tools into their curricula and provide professional development programs for teachers. These programs should focus on equipping educators with the knowledge and skills necessary to implement CALL effectively, emphasizing the importance of aligning technological tools with pedagogical objectives.

Future research could build on these findings by exploring the long-term impact of CALL on language acquisition across diverse educational settings and age groups. Investigating the integration of emerging technologies, such as Artificial Intelligence and Virtual Reality, into CALL practices may offer new insights into their potential for enhancing language instruction. Moreover, longitudinal studies could assess the sustainability of CALL’s benefits and its influence on students’ motivation, retention, and performance over extended periods.

In conclusion, the study reaffirms that CALL is not merely a supplementary tool but a pivotal component of

modern language education. Its thoughtful application can significantly enrich the teaching and learning experience, ultimately contributing to more effective and engaging language instruction in an increasingly digital world.

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Z.B.B.Y. is the sole author of this paper and has contributed to all aspects of the research and writing process.

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