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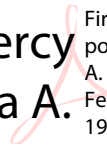
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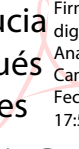
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1. ABSTRACT

Based on Connectivism (Siemens , 2005) and Sociocultural Theory (Vygotsky, 1978), this study analyzes the impact of limited technological resources on English language learning outcomes among 12-14-year-old students at *Unidad Educativa 'Rumipamba'* a public rural institution in *La Esperanza*, Ibarra, Ecuador. The research seeks to determine how technological limitations affect English language learning outcomes in this rural educational setting. A mixed-methods approach was employed, combining student surveys and semi-structured interviews with three English teachers from the eighth, ninth and tenth grade parallel A from *Educación General Básica Superior*. The findings indicate that limited technological resources negatively affect English language learning outcomes, particularly in listening and speaking skills. Although the present institution has a computer lab, administrative restrictions and unstable internet connectivity create a double barrier that goes beyond physical unavailability. Students recognized the value of technology for vocabulary development and reading comprehension, and expressed a preference for technology used in English classes: however, irregular access prevents students from fully developing their language skills. Teachers compensate through collaborative and active strategies, yet these ones are insufficient to fully bridge the technological gap, leading educators to reduce learning expectations and rely on basic language objectives, making it difficult to meet the English proficiency standards established by the national curriculum.

Keywords: limited technological resources, English language learning outcomes, rural EFL context, digital divide, low-tech strategies.

2. RESUMEN

Fundamentado en el Conectivismo (Siemens , 2005) y la teoría Sociocultural (Vygotsky, 1978), este estudio analiza el impacto de los recursos tecnológicos limitados en los resultados del aprendizaje del inglés en estudiantes de 12 a 14 años de la Unidad Educativa ‘Rumipamba’, una institución pública rural ubicada en La Esperanza, Ibarra, Ecuador. La investigación buscó determinar cómo las limitaciones tecnológicas afectan los resultados del aprendizaje del inglés en este contexto rural. Se empleó un diseño de métodos mixtos, combinando cuestionarios aplicados a estudiantes y entrevistas semiestructuradas con tres docentes de inglés de los grados octavo, noveno y décimo de Educación General Básica Superior. Los hallazgos indican que los recursos tecnológicos limitados afectan negativamente los resultados del aprendizaje del inglés, especialmente en las habilidades de escucha y producción oral. Aunque la institución cuenta con un laboratorio de computación, las restricciones administrativas y la conectividad a internet poco confiable generan una doble barrera que va más allá de la simple indisponibilidad física. Los estudiantes reconocieron el valor de la tecnología para el desarrollo del vocabulario y la comprensión lectora, y expresaron preferencia por la instrucción apoyada en tecnología; sin embargo, el acceso inconsistente impide que ese potencial se traduzca en un desarrollo lingüístico sostenido. Los docentes compensan mediante estrategias colaborativas y activas, pero estas resultan insuficientes para cerrar completamente la brecha tecnológica, lo que lleva a los educadores a reducir sus expectativas de aprendizaje y depender de objetivos lingüísticos básicos, dificultando el alcance de los niveles de competencia establecidos por el currículo nacional.

Palabras clave: recursos tecnológicos limitados, resultados del aprendizaje del inglés, contexto rural EFL, brecha digital, estrategias de baja tecnología.

3. INTRODUCTION

Nowadays, technology has transformed education worldwide, creating new opportunities for learning and teaching. Nevertheless, rural educational institutions continue facing significant disparities in access to both internet connectivity and technological resources. This research examines how these limitations affect English language learning outcomes in rural contexts.

Rural educational settings, specifically in Latin America, have long experienced considerable challenges, especially regarding access to technological and educational resources. According to Herrera (2025) these type of limitations have led to the development of new teaching strategies, some adapted to local contexts, and others more innovative. However, the absence of digital resources continues affecting the quality of English language learning outcomes among students.

In particular, rural areas in Ecuador face similar technological constraints. Yunga et al. (2025) mention that according to the technological dimension, there is limited availability of online resources and significant network limitations in these areas. These gaps create significant barriers that hinder the effective use of technological learning resources in these communities. As a result, students in rural areas face disadvantages in achieving English language learning outcomes in comparison to learners who live in urban areas. Furthermore, Hossain (2016) argues that students' learning outcomes are influenced not only by access to technology and geographical location, but also by the availability of resources and the quality of teachers. This highlights that both human and physical resources are interconnected in shaping effective learning environments. Therefore, understanding the impact of technological limitations requires considering the combined influence of these factors on student performance.

In addition, rural communities face economic challenges that limit access to technology, resulting in many rural institutions being not able to afford computers, projectors or good internet connections. This situation contributes to a digital divide between students in urban and rural educational contexts. According to the World Bank Group (2016) nearly 60 percent of the world's population remains offline, which highlights the unequal access to digital resources worldwide. Despite research showing that technology can improve language learning acquisition by providing authentic listening materials and interactive practice, this lack of resources forces many rural schools to rely on traditional teaching methods, thus limiting the use of technology in English teaching.

The selection of this research topic arises from the urgent need to address educational inequalities faced by rural students, specifically focusing on the impact of limited technological resources in rural schools within the context of English language learning. There is a gap between rural and urban educational institutions, specifically regarding technological resources, infrastructure and appropriate learning materials. This is because rural environments lack sufficient resources compared to urban settings, where the geographic location allows inhabitants to have access to various amenities (Candrawati & Purbani, 2025). Consequently, rural areas face significant inequity in educational opportunity, meaning that educational outcomes are determined by geographic location and access to any resources rather than by students' willingness to learn. This can result in an unfair educational system where rural students are not able to reach their full potential simply because they do not have access to the same tools and opportunities as students from urban areas (Candrawati & Purbani).

Based on previous research, Mncube et al. (2023) identified a knowledge gap that lies in the lack of studies examining how limited technological resources affect English language learning

outcomes in rural contexts. Although current research examines resource limitations and curriculum management challenges in rural educational contexts, prior literature does not explore in depth how technological scarcity influences language acquisition and most importantly, communicative skills such as speaking. Moreover, while researchers emphasize that the absence of suitable infrastructure and technological support hinders effective teaching and learning, they do not analyze in detail how these limitations affect foreign language education nor propose practical strategies to tackle them. Therefore, the knowledge gap lies in the need to search how limited technological resources impact rural students' English performance and to identify pedagogical approaches that can reduce these educational disparities (Mncube et al., 2023).

The purpose of this study is to analyze how limited technological resources impact English language learning outcomes in a rural educational setting. This is conducted by first establishing theoretical foundations on technology use in teaching English through a comprehensive literature review, as well as collecting field data through specific tools such as surveys and interviews with students between 12-14 years old and English teachers. Finally, the collected data is analyzed carefully to identify the specific effects of limited technological resources on students' English performance.

To address these research objectives, a mixed-methods approach is used in this study. This approach combines both quantitative and qualitative methods to provide a more comprehensive understanding of the present issue. The quantitative component helps to measure specific outcomes and frequencies, while the qualitative component explores students' and teachers' perceptions and experiences in depth, offering a comprehensive view of the drawbacks and opportunities that are faced in rural educational settings.

This study is organized in a way that each section focuses on a particular component of the research. The first part including state of the art, including key learning theories such as cognitive and sociocultural perspectives, as well as connectivism as a contemporary approach to learning in digital environments. Additionally, it addresses the role of technology in English language learning and the impact of the digital divide in rural education. The part related to materials and methods details the selection, explanation and development of the instruments employed for data collection. The second part focuses on the results and discussion, where collected data is examined systematically to establish connections with the research objectives. Then, conclusions and recommendations are presented based on the findings obtained throughout the research process. The research work concludes with references and annexes.

4. STATE OF THE ART

This research seeks to provide a current perspective on English language teaching in rural educational settings by exploring how limited technological resources influence English language learning outcomes among students aged 12-14. Given that restricted access to technology remains a persistent challenge in many rural communities, this literature review explores key issues related to this problem. Specifically, it analyzes the role of technology in language learning, the challenges faced by rural schools and the digital divide between urban and rural areas. Through this review, the study aims to establish a theoretical foundation for understanding the relationship between technological limitations in rural institutions and students' English language learning outcomes.

4.1 Learning Theories Related to English Language Acquisition

This research is grounded in three theoretical perspectives that provide a framework for understanding technology mediated language learning in contexts with limited resources. Constructivism offers insights into how students actively build knowledge through experience, Connectivism addresses how learning occurs in digital networks and Sociocultural theory examines the role of context and social interaction in learning. Together, these theories enable a multidimensional analysis of how limited technological resources affect English language acquisition among rural teenage learners.

4.1.1 Constructivism in Language Learning

Constructivism is one of the most influential learning theories in education, with Jean Piaget recognized as one of its leading figures. Regarding this perspective, cognitive development occurs through a series of stages in which individuals progressively construct more complex mental structures. In the context of language learning, constructivist principles promote a more interactive and contextual learning environment, letting students to connect new language skills

with their existing knowledge while developing more effective and independent communication abilities (Halid, 2024). This perspective highlights the importance of providing learning experiences that actively engage students in the process of constructing knowledge.

These principles have important implications for English language teaching and learning. In a constructivist language classroom, meaningful and authentic input plays a central role, as learners build their understanding of English by engaging with content that reflects real communicative purposes. Activities such as group work, task-based interaction and information-gap exchanges promote active participation and support the type of collaborative learning through which students develop knowledge. These meaningful experiences also create opportunities for scaffolding, allowing learners to receive guidance while gradually gaining independence. From this perspective, the teacher no longer acts as a source of knowledge but becomes a facilitator who supports interaction, provides strategic assistance, and helps learners make sense of new language through meaningful engagement (Richards, 2006).

4.1.2 Sociocultural Theory and Rural Contexts

Sociocultural theory, developed by Lev Vygotsky, establishes that learning is fundamentally a social and cultural process rather than an individual one. From this perspective, knowledge is built by social interaction and the use of meaningful cultural tools, rather than through individual effort. The theory proposes that cognitive functions first appear on the social plane through interpersonal exchanges and are subsequently internalized to become part of individual mental processes. Vygotsky emphasized that all higher mental functions originate as actual relationships between people before becoming psychological processes within the individual. This framework highlights that learning cannot be separate from its social and cultural context, as the interactions children have with more knowledgeable others serve as the foundation

for their cognitive development and shape how they come to understand and participate in their cultural world (Vygotsky, 1978).

This emphasis on social interaction and the role of more experienced individuals becomes especially relevant when examining rural EFL contexts, where students' opportunities to engage with the English language are mostly restricted to the classroom. In these settings, EFL students already have very limited contact with the target language outside of the classroom, a situation that becomes even more challenging where technological resources are also insufficient. Under these conditions, the teacher and peers become the primary mediators of language learning, making the quality of classroom interaction essential for students' linguistic development. When access to external resources is limited, the social environment of the classroom becomes the main space where meaningful language learning can take place (Behroozizad et al., 2014).

From a sociocultural perspective, technology supports learning most effectively when it functions as a mediating tool rather than the central focus of instruction. When teaching places excessive emphasis on technical skills alone, learners often acquire only basic operational knowledge, such as managing files or using software mechanically, without deeper educational benefits. In contrast, integrating digital tools into meaningful learning activities allows students to engage with new communities, cultures, and real-world problems, fostering more complex forms of literacy. Through this approach, technology becomes a cultural resource that facilitates participation, interaction, and knowledge construction. In rural EFL contexts, this highlights the importance of using limited technological resources strategically to promote meaningful language learning rather than isolated technical practice (Warschauer, 2003).

4.1.3 Connectivism and Technology-Mediated Learning

In recent years, the way people learn has changed greatly due to the growth of digital age. In this context, Siemens (2005) introduced Connectivism as a learning theory specifically designed to address the demands of the digital age. This theoretical framework emerged in response to the fundamental transformations occurring in society, where learning has shifted from being an isolated cognitive process to connected, collaborative activity. Traditional educational models have struggled to adapt to the ways in which digital tools reshape how individuals work, communicate and acquire knowledge. Connectivism addresses this gap by providing a comprehensive understanding of the competencies and strategies that learners require to succeed in technologically mediated environments. This paradigm shift acknowledges that the integration of new tools fundamentally alters not only what is learned but also the processes through which learning occurs (Siemens , 2005).

The connectivist model positions the individual learner as the central part of a global network of knowledge. Personal knowledge does not exist in isolation but works as part of a bigger system where information moves constantly between people, organizations, and institutions. This process establishes a cycle where individual learning contributes to organizational knowledge, which then enriches broader networks and these networks then provide updated learning to individuals. The ability to build and maintain these connections helps learners stay updated in their fields. This continuous exchange shows how learning has moved from fixed, unchanging methods to more active and developing approaches in digital spaces (Siemens , 2005). From a connectivist perspective, access to technological resources is essential, as it enables learners to establish connections with information, digital tools and learning networks that support language development.

According to Azizah et al. (2024) state that implementing Connectivism practice increases learners' awareness, leadership, and self-organization, helping them develop critical thinking through the different challenges they encounter in highly connected environments. Additionally, digital environments support the development of learners' communication and collaboration skills. These benefits suggest that connectivism plays an essential role in preparing students to actively participate in technology-supported learning environments. By fostering essential skills such as critical thinking, communication, and collaboration, this approach contributes to a more active and meaningful learning process.

4.2 The Role of Technology in 21st Century English Language Learning

Technology has become an essential component of English language learning in the 21st century, providing students with new opportunities to develop language skills through innovative and interactive learning experiences. Its integration into language education has transformed traditional teaching methods by promoting greater engagement and participation among learners. In this context, several studies have highlighted the positive impact of technology on students' language development. Understanding the role of technology in language education is particularly relevant to the present study, as it provides a basis for examining how limitations in technological resources may influence English language learning outcomes among students in rural educational settings.

Chong and Reinders (2020) mention that participants in the studies reported that their language proficiency improved after taking part in technology-mediated tasks. These improvements include vocabulary, grammar, pronunciation, presentation skills, and the use of basic sentence patterns, as noted in eight studies. These results suggest that technology-mediated tasks may build meaningful learning environments that promote interaction, immediate feedback

and significant practice, which helps the development of specific language subskills. The use of technological tools seems to provide higher levels of student engagement and supports the development of language skills.

The impact of technology on language education has been so significant that currently teachers and professors use various digital tools to teach their classes because of their effectiveness. Within the English as a Foreign Language (EFL) learner population, the integration of technology has become a component of paramount importance in the learning process. Technological resources are mainly used by most students, reflecting their understanding of how technology can enhance language acquisition through exposure to real language content, opportunities for interactive engagement and the development of learner autonomy (Nurhadi et al., 2024).

In the same vein, several research studies have demonstrated that technology offers an extensive variety of benefits, such as interactive resources and meaningful learning activities. Unlike traditional dictionaries and grammar books, technological resources integrate audio pronunciations, visual media and hyperlinked content for enhancing learning. Language learners benefit from available video tutorials on linguistic and cultural themes, as well as immediate access to authentic materials like music, films, news media, podcasts and virtual exhibitions that provide language models while offering cultural insights and creative engagement (Kern, 2024). Moreover, as technology has advanced, a variety of tools have emerged that support language learning, among which artificial intelligence (AI) plays an important role. AI tools provide beginners with enhanced control over their target language through multimodal translanguaging tools, including translation, text-to-speech synthesis, real-time interaction, text composition and diverse cultural expression

formats. These AI-powered resources help overcome the comprehension and communication barriers that typically frustrate novice learners (Chapelle, 2024).

On the other hand, the advantages of technology in education extend beyond the availability of resources to include enhanced student motivation to learn. This can be explained by the fact that digital technologies encourage observational learning and self-regulation, enhance students' active engagement and critical thinking, support deeper understanding of learning content and consequently improve academic performance (Shao et al., 2025). Overall, technology must be understood as a key mediator in the language learning process, as it not only provides diverse learning resources but also shapes students' engagement, self-regulation and deeper understanding, thereby contributing significantly to effective and meaningful English language learning.

4.2.1 Moving from Traditional Classrooms to Technology-Supported Learning

The educational landscape has experienced a significant transition over the past two decades, transitioning from traditional teaching methods to technology-enhanced learning environments. As educational institutions progressively integrate digital tools, emphasis has shifted toward establishing more flexible, personalized, and engaging learning experiences that transcend the limits of physical classroom spaces. However, Çelik and Baturay (2024) mention that “emerging technology in education is a double-edged sword: it is a powerful tool for maintaining educational continuity but may also present significant challenges” (p.2). Regarding this, technology's role in education is complex, it offers solutions for continuous instruction but demands attention to the difficulties it brings. Indeed, research indicates that the success of digital learning environments depends on strategic planning and the implementation of established design methodologies. This means that technology alone cannot ensure educational quality, rather,

pedagogical expertise and careful preparation are essential for successful implementation (Hodges et al., 2020).

In this context, the change from traditional classrooms to technology-supported learning environments represents an important progress in English language education. This transition requires not only the use of technological resources but also pedagogical innovation. Consequently, textbook-based instruction and teacher-centered methodologies are gradually being replaced by the strategic integration of digital tools and modern teaching frameworks. Within this process, Information and Communication Technologies (ICTs) play a crucial role in language teaching. ICTs foster student motivation, enhance communicative skills, enable personalized learning experiences and support teacher professional development. For this reason, their effective use is essential to improve the quality of English language education and prepare learners for a globalized and digitalized world (Yáñez-Goyes et al., 2024).

4.2.2 Technology as a Source of Authentic Language Input and Exposure

Research has emphasized the role of technology in enhancing the quality and authenticity of language exposure, as well as its impact on various dimensions of English language learning. Findings indicate that the use of contemporary technologies improves the quality of linguistic input and the authenticity of communicative interactions, while also offering meaningful and immediate feedback. Technological tools such as presentation software, internet-based resources, digital games and audiovisual materials are widely used to support English language learning, with evidence highlighting their positive influence on all language skills and sub-skills, including listening, speaking, reading, writing, grammar and vocabulary development (Ghanizadeh et al., 2015).

However, not all forms of digital exposure contribute the same way to language learning. De Wilde et al. (2018) suggest that three modalities of linguistic exposure were fundamentally significant for children's English language competency development: engagement with social media in English, gaming in English and oral communication in English. These forms of exposure provide extensive opportunities for authentic social interaction and meaningful communication, unlike more receptive activities such as watching TV, listening to music or reading, which involve limited interaction. This distinction highlights the importance of selecting digital tools that facilitate active participation and authentic communication in language learning contexts, thereby helping teachers prioritize interactive digital activities when designing English learning experiences.

Mohd and Ismail (2025) found that social media platforms can effectively support vocabulary learning's cognitive and affective components when integrated with effective pedagogical design. These digital tools provide students with authentic, multimodal language exposure within socially relevant contexts that align with students' contemporary digital engagement patterns. However, positive learning outcomes largely depend on thoughtful curricular integration, appropriate teacher scaffolding and supportive institutional policies. These findings underscore the growing relevance of social media as a pedagogical tool for vocabulary development when integrated through appropriate instructional design.

Regarding the use of video games in English learning, research conducted in Bangladesh indicates that most children consider video games to be effective resources for learning English, as they promote an enjoyable and low-anxiety learning environment. Through game-based activities, students can develop vocabulary knowledge and sentence structures in a natural and engaging manner. These positive insights suggest that integrating video games into language

teaching may enhance English language experiences (Snigdha & Debnath, 2024). This evidence sheds light on the role of game-based learning as a crucial approach for improving English language acquisition among young learners.

Finally, Olivo et al. (2024) report that learners highly value technological resources that encourage interactivity, immediate feedback and engaging learning experiences, as these features promote active participation and motivation in English speaking activities. These elements enhance students' exposure to English and support frequent communicative practice, highlighting the importance of innovative digital tools in English speaking instruction. In light of this evidence, interactive digital tools contribute to learners' English exposure by promoting active participation and communicative practice, which are essential for the development of English-speaking skills.

4.2.3 The Digital Divide in Rural Educational Settings

While the benefits of technology for English language learning have been widely recognized, not all students have the same opportunities to access these resources specifically in rural educational contexts. As a result, disparities in technological access continue to create challenges that may affect students' learning experiences and academic outcomes. Hence, examining the digital divide is crucial for understanding how limited technological resources may influence English language learning outcomes in rural settings.

The digital divide creates unequal access to technology, establishing a form of privilege for certain populations. This disparity results from multiple interrelated factors, including ownership of computing devices, availability and adoption of high-speed Internet services, and the development of digital literacy skills (Sanders & Scanlon, 2021). In educational contexts, this demonstrates that students' academic success increasingly depends not only on their cognitive abilities but also on their access to digital infrastructure and skills.

Among the various aspects of this divide, geographic location emerges as a significant factor. Sanders and Scanlon (2021) mention that “since the dawn of the Internet, rural areas have had less Internet access than urban areas. High-speed wired connections are less common, and wireless phone service and signals are weaker than in cities (or absent all together)” (p. 134). This inequality has deep implications for educational equity, as students in rural areas lack consistent access to digital learning platforms, online resources and technology-enhanced instruction that are increasingly essential for academic success in the 21st century.

One of the most persistent barriers to effective English language learning in rural settings is the digital divide, which is reflected in inadequate technological infrastructure and limited access to current digital resources for both students and teachers. In these settings, limited internet connectivity, insufficient devices and inadequate institutional infrastructure hinder the integration of technology into the learning process. These limitations not only intensify existing challenges already identified in rural English education but also show a clear difference when compared to urban contexts, where technological availability, reliable connectivity and digital tools are more consistently incorporated into classroom practices (Mustafa et al., 2024).

Meanwhile, Kormos and Wisdom (2021) provide empirical evidence demonstrating that the digital divide in rural educational settings remains substantial, as rural teachers report very low frequencies of technology use in their instructional practices. For example, although teachers occasionally integrate technology into lesson planning, activities that require reliable internet access such as assigning web-based classwork or asking students to access the internet during class occur only once or twice per week. These patterns suggest that the digital divide in rural settings is not only a matter of infrastructure but also a structural limitation that restricts teachers’ capacity to implement consistent, technology enhanced instruction. This limited frequency of use ultimately

reduces students' opportunities to engage with digital resources that are now standard in more advantaged urban contexts, thereby continuing the existing educational inequalities.

The consequences of these technological limitations extend beyond instructional practices and directly affect students' learning outcomes. Indeed, rural educational settings are particularly affected by the digital divide due to limited access to technological resources, inadequate digital infrastructure and lower levels of digital skills among students and teachers. These limitations reduce students' ability to participate effectively in online learning and often result in lower academic outcomes when compared to learners in urban contexts, especially during periods of remote education (Tseng et al., 2023). This suggests that the digital divide in rural educational settings is not only a matter of access but also of educational readiness, which determines whether remote learning opportunities can be used effectively.

Moreover, it is of paramount importance that teachers have knowledge about the use of various technological resources to support the teaching and learning process. Teachers who possess a high level of digital competencies are able to integrate digital tools into curriculum design, facilitating engaging and interactive learning experiences. In the same way, these educators can promote student cooperation through virtual environments that support collaborative learning and cross-cultural interactions, while maintaining their professional development through continuous training in emerging digital pedagogies (Değirmenci, 2024). However, such competencies become limited in contexts where students lack reliable internet access and adequate devices, especially in rural areas where the digital divide persists as a fundamental barrier to equitable English language teaching.

Another factor to consider is the influence of this digital divide on students' English learning outcomes. Rural schools in Ecuador continue to face a significant digital divide despite

the government efforts to address this problem. This situation manifests through poor technology infrastructure, unstable internet access, shortage of digital equipment and insufficient teacher training in using technology. Such conditions may restrict students' opportunities to access digital learning resources and technology-supported educational activities which are increasingly integrated into language learning environments. As a result, students miss out on the learning benefits that technology can provide for their education and personal growth (Ferrín-Moreira et al., 2025). This digital limitation significantly impacts English language learning as technology-mediated resources are essential for exposing learners to authentic language use and interactive practice opportunities.

4.3 Rural Education in Latin America

Educational settings outside urban centers are shaped by specific structural and contextual conditions that influence how English as a Foreign Language (ESL) is taught and learned. Factors such as the social environment, cultural background, limited exposure to English and the lack of technological resources in the classroom influence the educational process. More specifically, despite national efforts to promote the integration of Information and Communication Technologies (ICTs) within the Ecuadorian educational system, rural areas continue facing significant challenges in accessing and implementing digital resources. These persistent structural inequalities contribute to educational disparities between rural and urban settings and may negatively impact English language learning opportunities and outcomes among students (Rodríguez et al., 2025).

Research on rural intercultural and bilingual education in Latin America indicates that Spanish and Indigenous languages remain central in students' linguistic backgrounds. Studies show that multilingual and intercultural approaches aim to preserve Indigenous languages while

English is mainly introduced through formal education rather than daily home use. In rural contexts, learners are commonly identified as Spanish or Indigenous language speakers, highlighting that English does not function as a home language but as a foreign language learned at school. These findings emphasize the predominance of local languages in rural students' everyday communication and cultural identity. Recognizing students' mother tongue in rural contexts is essential for understanding how English is acquired as a foreign language. When Spanish or Indigenous languages dominate daily communication, English is positioned mainly as a school subject rather than a language of social interaction (Duque et al., 2024).

This reality affects how Indigenous students view English learning. Research shows that Indigenous students have mixed feelings about English. Students with strong cultural identities often have better attitudes toward learning English. However, they see English in two ways, first as a useful tool for education and future opportunities, and the second, as a threat to their culture. These negative views come from worries about losing their traditions and resisting colonial influences. Studies indicate that when students maintain strong cultural identities, they feel more confident and positive about learning English, Indigenous students can move between both worlds and express themselves in both languages (Reyes et al., 2025).

4.4 Limited Technological Resources in Rural Educational Contexts

Limited technological resources continue representing a main problem in rural educational contexts. Restricted access to digital devices, internet connectivity and technological infrastructure limits the opportunities available for both teaching and learning. These limitations contribute to the emergence of a digital divide, resulting in unequal educational conditions that may affect students' access to technology-enhanced learning experiences.

In rural Latin American contexts, the lack of adequate technological infrastructure directly affects the quality of English language instruction available to students. Teachers in rural schools frequently lack proper training on the use of technology and do not have access to the necessary facilities and equipment to implement official instructional materials effectively (Izquierdo et al., 2021). As a result, students have very little exposure to English outside of the classroom, which reduces their motivation and makes the school the only real space where contact with the language can occur (Izquierdo et al., 2021).

The institutional methodological and technological limitations present in these contexts have direct consequences on the development of core language skills. The lack of appropriate didactic resources, the reliance on traditional teaching methods and the absence of technology in the classroom negatively affect listening comprehension, oral expression, written communication and verbal fluency among basic education students (Yunga Albán et al., 2025).

The effects of limited resources in English language education are reflected in national and international assessments. As Newman et al. (2023) indicate, Ecuador ranked 80th out of 113 countries in the Education First Proficiency Index and 18th out of 20 Latin American countries, surpassed only by Mexico and Haiti, a position that has remained largely unchanged for decades, suggesting that systemic barriers particularly in rural public schools, continue to hinder the achievement of the English proficiency levels established by the national curriculum.

The lack of technological infrastructure in rural Ecuadorian schools has been consistently identified as a critical barrier to English language learning, directly contributing to proficiency levels that do not meet the required standards established by the national curriculum (Yunga Albán et al., 2025). This evidence suggests that technological limitations do not simply affect classroom

dynamics, but fundamentally determine the quality of language learning outcomes students are able to achieve in these contexts.

4.5 Teacher-Related Barriers to Technology Integration in Rural English as a Foreign Language (EFL) Settings

In rural EFL classrooms, teachers' ability to mediate learning is increasingly hindered by gaps in digital training and limited pedagogical resources, creating additional barriers to effective technology integration. In addition to these challenges, many rural schools also face persistent shortages of qualified teachers, largely because non-specialist staff are often required to assume instructional roles typically assigned to professionally trained educators. This situation reduces the overall quality of instruction and leads to high teacher turnover since new teachers often leave when they cannot grow professionally. The limited access to continuous training, especially training related to pedagogy and technology, makes it harder for teachers to improve their skills and adapt to classroom needs. Consequently, rural schools struggle to retain qualified educators, which further limits their ability to integrate technology effectively in EFL teaching (Liu et al., 2022, p. 6).

Teachers working in rural primary schools acknowledge the potential benefits of integrating technology into English First Additional Language instruction: however, they often face continuous barriers such as limited access to facilities, time constraints, insufficient digital skills and unreliable internet connectivity, which limit the effective integration of technology into their teaching practices (Maja, 2023, p. 96). This suggests that teachers' willingness alone is not enough to overcome structural limitations as persistent resource constraints continue restricting the effective use of technology in rural EFL classrooms.

Another crucial factor to consider is teacher training. Although digital platforms provide innovative resources, their effectiveness depends on educators' level of preparation. A lack of training in digital technologies may result in resistance to change and hinder adaptation to new teaching models. Therefore, the implementation of continuous professional development programs is paramount to ensure that teachers can use these tools to promote meaningful learning among students (Alvarado et al., 2025). Such findings reinforce the need for strong digital literacy among teachers to facilitate meaningful learning, particularly in contexts where limited resources restrict effective technology integration.

Rodríguez et al. (2025) state that these digital competencies extend beyond the instrumental use of digital devices and include pedagogical, communicative, assessment and innovative skills that are crucial for transforming teaching practices through the effective use of information and communication technologies. Nevertheless, in rural areas of Ecuador, a significant gap in teacher training for the pedagogical and strategic use of ICT persists, representing one of the main obstacles to their effective implementation in classroom practice.

Despite the recognized importance of these competencies, evidence suggests that technology integration remains limited in many rural EFL classrooms. Gerfanova et al. (2025) state that “In contrast, rural EFL teachers demonstrated a lower rate of technology integration, with only 37.3% of the participants employing technologies on a regular basis and 54.7% acknowledging infrequent incorporation of digital tools into their teaching practices” (p.311). This discrepancy emphasizes the gap between expected digital competencies and actual pedagogical practices in rural EFL classrooms.

4.6 English Language Teaching Approaches in Rural Educational Settings

The Rural education environment faces strong challenges in education, including limited resources, reduced target language exposure and geographical isolation. In this context, the choice of teaching approaches plays a fundamental role in determining learning outcomes, since certain methodologies prove more effective than others. For that reason, this section examines aspects of English Language Teaching (ELT) practice that have demonstrated relevance in rural educational contexts.

Collaborative learning is commonly associated with the principles of social constructivist philosophy. Although the term has not always been used exclusively within this theoretical framework, an increasing number of scholars employ it to refer to an approach grounded in constructivist epistemology, in which knowledge is understood as being socially constructed through interaction and shared experiences. From this perspective, collaborative learning emphasizes the active role of learners in the construction of knowledge, where interaction, dialogue and shared responsibility are considered essential elements of the learning process rather than only teacher-centered activity (Oxford, 1997, p. 447). Such features are particularly beneficial in rural EFL contexts, where classroom interaction often becomes a key resource for supporting language learning in the lack of extensive technological resources.

According to collaborative learning, cooperative learning encourages students to contribute individually to groups of success, promoting deeper understanding through collaboration. In this approach, teachers serve as facilitators rather than central figures, which contrasts with traditional instruction. Learning occurs through social interaction, supporting shared goals, personal development and long-term retention. This approach is particularly effective in the English as a Foreign Language (EFL) classroom, as it allows students to practice language skills in meaningful interactions. By emphasizing shared goals and teacher facilitation, cooperative learning supports

meaningful engagement and helps students develop responsibility for their own learning (Gamit et al., 2017). Furthermore, this approach may help compensate for limited technological resources by enabling opportunities for interaction and language practice through peer collaboration.

Based on this theoretical foundation, various classroom activities have been proposed to support collaborative and cooperative learning. Group projects promote active student participation, strengthen their knowledge and build supportive learning environments. An important element is peer tutoring, where students help each other learn and improve their abilities. Forming student groups in writing and speaking classes has proven particularly effective for developing language skills through collaborative writing, peer editing and exchanging ideas. Through these collaborative experiences, students overcome their fear of making mistakes while simultaneously developing confidence in their language abilities. Furthermore, this peer-based approach enables students to learn from both their classmates and their teachers (Alzubi et al., 2024, p. 40).

4.7 Teaching Strategies in Rural EFL Classrooms

To address the lack of digital resources in rural environments, English teachers have developed innovative pedagogical strategies to compensate for insufficient technological infrastructure. Such adaptations are crucial for maintaining instructional quality and fostering student participation in contexts with limited resources (Candrawati & Purbani, 2025, p. 7). For students in these contexts, the effectiveness of such low-tech strategies directly impacts their English language learning outcomes, especially in developing receptive and productive skills that typically benefit from multimedia resources.

As mentioned above, there is a lack of technological resources that's why low-tech and no-tech strategies have emerged as practical alternatives to support English language teaching and

learning. For instance, “using handmade flashcards in language learning has been found to offer numerous benefits for enhancing English comprehension abilities among young learners. Firstly, the visual nature of handmade flashcards aids in facilitating vocabulary acquisition and retention” (Ahmad et al., 2024, p. 182). This demonstrates that low-tech strategies serve as practical alternatives for sustaining English learning outcomes in rural classrooms with limited technological resources.

Moreover, Anggela et al. (2024) state that the interview findings emphasize the teacher’s adaptability and commitment as evidenced by the implementation of innovative practices and the personal use of financial resources to address the challenges created by insufficient infrastructure. The use of a personal Bluetooth speaker and the purchase of additional teaching materials demonstrate the teacher’s determination to deliver meaningful and effective English lessons despite resource limitations (p.6). This study emphasizes that low-tech and no-tech strategies are not only compensatory strategies but also effective pedagogical practices that support meaningful language learning in EFL classrooms with limited resources.

Many rural educational institutions lack multimedia tools, which limit the effective implementation of listening activities. In response, teachers frequently rely on oral modelling to demonstrate correct pronunciation and intonation. This practice allows students to receive accurate phonological input despite the lack of audio resources (Safitri et al., 2025). This study highlights the need to reconsider listening instruction in classrooms with limited resources, positioning teacher-provided input as a key source of language exposure.

Although oral modeling can offer phonological input where audio tools are lacking (Safitri et al., 2025), research in Latin America shows that preservice EFL teachers often express dissatisfaction and low confidence in their own pronunciation, which could limit the accuracy and

effectiveness of the input they provide in the classroom (Abad-Célleri et al., 2024, p. 81). In the context of resource-limited classrooms, this suggests that oral modelling may not always guarantee fully accurate phonological input, highlighting the need for teacher training and ongoing support to strengthen pronunciation instruction.

4.8 English Learning Outcomes in Rural Educational Settings: Students Aged 12-14

The teaching approaches and strategies previously discussed serve a common purpose: supporting students in achieving their English language learning outcomes. Learning outcomes can be understood as statements that describe what students are expected to know, understand and demonstrate at the end of a learning process (Kennedy, 2006). However, achieving these outcomes in EFL contexts remains a significant challenge. Renandya (2013) points out that despite years of formal English instruction, many students still struggle to express themselves in both speaking and writing, suggesting that the gap between expected and actual outcomes remains a persistent challenge in EFL education. This concern becomes especially relevant in the Ecuadorian context, where the national curriculum establishes specific proficiency levels that students are expected to reach, yet rural settings with limited technological resources may further hinder their achievement.

According to the *Ministerio de Educación del Ecuador* (2012) the national English Language Learning Standards establish a progression based on the Common European Framework of Reference for Languages, in which students in *Educación General Básica Superior* are expected to reach level A1.1 by the end of 8th grade, A1.2 by the end of 9th grade, and A2.1 by the end of 10th grade. However, this planned progression assumes a level of instructional consistency and resource availability that does not always match the reality of rural schools, where students who lack access to adequate technological tools face greater difficulties in meeting the English proficiency goals set by the curriculum.

5. MATERIALS AND METHODS

5.1 Introduction

This section presents the materials and methodological procedures employed in the development of the present research. It explains the research approach, participants, data collection instruments, and data analysis procedures used to address the research objectives and answer the research questions. The study adopted a mixed-methods approach, integrating quantitative and qualitative techniques to obtain a comprehensive understanding of the impact of limited technological resources on English language learning outcomes among 12-14-year-old students at Unidad Educativa ‘Rumipamba’, located in La Esperanza, Ibarra, Ecuador. This institution was selected as the research site due to its rural context and its relevance to the objectives of the study.

Quantitative data were collected through surveys applied to students, while qualitative data were obtained through interviews conducted with English teachers. The integration of both approaches allowed for the examination of numerical trends regarding the availability and use of technological resources, as well as the exploration of teachers’ experiences and perceptions concerning their influence on English language outcomes. This methodological framework allows for a systematic analysis of both numerical trends and contextual insights related to the availability and use of technological resources and its impact on English language learning outcomes.

5.2 Objectives

GENERAL OBJECTIVE

Collect data on the availability and use of technological tools in English classes through surveys applied to students between 12-14 years old and interviews conducted with English

teachers in a rural school setting, in order to examine their impact on English language learning outcomes.

SPECIFIC OBJECTIVES

- To identify the availability and types of technological resources for English teaching and learning in the selected rural school through interviews with English teachers and surveys applied to students.
- To identify English teachers' perceptions regarding students' English language learning outcomes in a rural school.
- To explore students' opportunities to develop English language skills through surveys administered to students and interviews with English teachers.

5.3 Type of Research

Tabla 1

MATRIX OF VARIABLES

THEME	GENERAL OBJECTIVE	SPECIFIC OBJECTIVES	VARIABLES	INDICATORS	RESOURCES (INSTRUMENTS)
The impact of limited technological resources on English language learning outcomes among 12–14-year-old students in a rural	Collect data on the availability and use of technological tools in English classes through surveys applied to students between 12-14 years old and interviews conducted with teachers in a rural school setting, in order to examine their impact on English language	To identify the availability and types of technological resources for English teaching and learning in the selected rural school through interviews with English teachers and surveys applied to students. To identify English teachers' perceptions regarding students' English	INDEPENDENT	Availability of technological tools Frequency of use	Survey (students 12-14 years old) Interview (English teachers)
			Limited technological resources	Access to internet and digital resources	
			DEPENDENT	Teachers' perception of students' English performance Curriculum-based	Interview (English teachers)

educational setting	learning outcomes.	language learning outcomes in a rural school.			
		To explore students' opportunities to develop English language skills through surveys administered to students and interviews with English teachers.	DEPENDENT	Speaking skills Vocabulary development Reading skills Listening skills Writing skills	Survey (students 12-14 years old) Interview (English teachers)

This study adopted a descriptive research design. According to McCombes (2023) descriptive research aims to accurately and systematically describe a population, situation or phenomenon and is appropriate when the objective is to identify characteristics, frequencies, trends and categories. This design was considered appropriate because the study attempted to describe the availability and use of technological resources in English classes. As well as students' and teachers' perceptions regarding their influence on English language learning outcomes in a rural education setting. Since the research did not involve the manipulation of variables or the

establishment of causal relationships, a descriptive design was considerable for addressing the research objectives.

5.5 Population

The population of this study consists of all students and English teachers from the three grade levels of Educación General Básica Superior at Unidad Educativa ‘Rumipamba’, which includes eighth, ninth, and tenth grade, each with two parallel sections (A and B). Nevertheless, due to time and logistical constraints inherent to the research process, the instruments were applied only to the three grade levels (8th, 9th, 10th) parallel A sections, resulting in a sample rather than a complete population study.

The sample is composed of three English teachers and approximately sixty-two students from the Educación General Básica Superior at the selected rural institution. The participating teachers are responsible for the eighth, ninth, and tenth grades. This sample was selected because it represents a rural educational context where access to technological resources is limited, which is directly related to the purpose of the study. Including both teachers and students allowed for a comprehensive examination, focusing on these participants allows for an in-depth exploration of the availability and use of technological resources, as well as teachers’ perceptions of students’ English language learning outcomes within this educational setting.

5.6 Data Collection Techniques and Instruments

The present research employed both quantitative and qualitative data collection techniques. The quantitative technique consisted of a survey and its instrument was a questionnaire with fourteen questions. The student questionnaire collected data regarding the availability and use of technological resources in English classes, students’ perceptions of the influence of technology on the development of English language skills (listening, speaking, reading, writing, vocabulary, and

grammar), and their perceptions of English language learning outcomes. It is important to note that the variable English Language Learning Outcomes was measured subjectively, as it was based on students' perceptions rather than on objective and standardized measures of achievement.

The qualitative technique consisted of an interview and its instrument was a semi-structured interview guide including thirteen open-ended questions. The guide was designed to collect information regarding availability and use of technological resources, the development of English language skills, and English language learning outcomes at Unidad Educativa 'Rumipamba'.

5.7 Resources

The present study was conducted without external financial support. All expenses related to transportation, printing of instruments, and basic materials were covered by the researchers. This research was carried out at Unidad Educativa 'Rumipamba', a public rural institution that authorized access to English teachers and students for data collection through surveys and interviews. Human resources included the researchers, who were responsible for the design of the instruments, data collection and data analysis, as well as the thesis advisor, who provided academic guidance throughout the research process. Material resources included printed questionnaires, interview guides, notebooks, pens and other school supplies necessary for the implementation of the study.

6. RESULTS

This section presents the findings obtained from the two research instruments employed in this study: a questionnaire and a semi-structured interview guide. To analyze the collected data, different analysis techniques were applied according to the corresponding research approach: figures and percentages were used to address the quantitative component to identify, while an analysis matrix was used to interpret the qualitative data. The results were obtained from the following study participants: students aged 12 to 14 years, and English teachers. The findings are organized and discussed in alignment with the three study variables: Limited Technological Resources (V1), English Language Skills (V2), and English Language Learning Outcomes (V3).

6.1 Analysis of the Questionnaire Results

The findings obtained from the questionnaire correspond to Variable 1, Variable 2, and Variable 3. However, regarding Variable 3, the data was collected through students' perceptual responses, which means it was measured subjectively, as directly observing their progress in the classroom was not possible due to time constraints and complexity of the study.

The findings related to limited technological resources (V1) reveal that the challenges students face in this rural setting go beyond the lack of infrastructure. Although there is a computer lab in the institution, the majority of students are either not allowed to use it or can only access to it rarely, which demonstrates that the technological gap experienced in this context is not only a matter of economic or geographic aspects but also of administrative and pedagogical decisions that prevent students from benefiting from what is already available. This is further complicated by the fact that more than half of the students reported having no contact at all with technological resources during their English classes, meaning that language teaching occurs almost entirely

disconnected from the tools that are nowadays considered crucial for developing communicative language skills.

Also worth noting is the state of internet connectivity within the institution. Most students do not perceive the school's internet connection as reliable enough to support meaningful learning activities, which discards any chance of compensating for the lack of physical devices through online platforms, authentic digital materials or interactive resources. Overall, these conditions clearly demonstrate a learning environment where technology is available but not effectively used, and the students themselves are aware of it. Most of them explicitly recognize that the absence of computers and internet makes it harder for them to acquire the language.

The results gathered around English language skills (V2) was divided into two main groups: receptive (reading and listening), productive skills (writing and speaking) and vocabulary. Regarding receptive skills, the data show a contradiction worth examining: students acknowledge that technology has contributed to improving their reading, vocabulary, and grammar, yet this stands in contrast to the fact that a great majority reported having no regular access to technological tools. This suggests that the limited experiences they have had with technological resources have been meaningful enough to leave a positive impression, but not frequent enough to contribute to the development of skills. In this regard, listening becomes evident as the most vulnerable skill, since it depends directly on exposure to authentic auditory input that is difficult to replicate without technology, especially in a rural setting where English is virtually absent outside the classroom.

Additionally, the data corresponding to the productive skills reveals a notable pattern in writing development. The almost equal distribution between students who perceived a benefit and those who remained neutral regarding the use of computers or tablets for written production in English points to a lack of meaningful exposure to these tools. Without sufficient and continuous

interaction with digital writing resources, students are not in a position to evaluate their actual impact on the development of written autonomy, a limitation that is itself a consequence of the restricted and irregular technological access that characterizes this rural educational setting. Regarding speaking, a considerable percentage of students report that technology is used for communicative activities in class such as conversations, and role plays by using digital tools. However, this contrasts with Variable 1 (V1), in which students stated that they do not have contact with technological tools during English classes.

The results related to English Language Learning outcomes reveal a persistent pattern in how students perceive the role of technology in their learning process. Most of students report that they retain information better and participate more actively in class when technology is used, compared to traditional resources such as the board or printed worksheets, which suggests that digital resources have a positive effect not only on academic retention but also on student engagement during English lessons. This perception is further reinforced by the fact that most students recognize the lack of computers and internet as something that makes learning English harder, and that their performance would improve with greater access to technological resources. The findings, taken as a whole, indicate that students are aware of the potential impact that technology could have on their learning outcomes, even if their actual experience with these tools remains limited and inconsistent.

6.2 Analysis of the Semi-Structured Interview Responses

The data were gathered from the responses of the three English teachers: therefore, their testimonies are represented as Teacher 1 (T1), Teacher 2 (T2), and Teacher 3 (T3). The findings obtained from the semi-structured interview are aligned with the Variable 1, Variable 2, and Variable 3 of the study.

Regarding limited technological resources (V1), the findings from the teacher interviews reinforce and strengthen what was evidenced in the student surveys. The absence of technology specifically designated for English language teaching is a reality that both T1 and T2 confirm: the institution has a computer lab, but it is not exclusively assigned to English classes and is shared across different subjects, which further restricts its availability. Owing to this fact, teachers must compensate for this shortage with their own personal resources, which demonstrates that the technological limitation in this rural context does not only have an impact on students but also limits the pedagogical possibilities of the teacher, who is forced to individually assume a responsibility that should be institutional.

The frequency with which technological resources are used in English classes further demonstrates the relevance of this limitation. As T1 indicates, technology is used at most once a week, while T3 reports incorporating it only once a month due to time constraints, with only three hours of English per week. This reveals that what takes place cannot be considered meaningful technological integration but rather an occasional and disconnected practice that can hardly generate a positive impact on language learning.

Corresponding to the responses about English language skills (V2), both T2 and T3 point out that the only technological resource barely available for developing language skills is a personal speaker, and it is primarily used for listening activities. Moreover, T1 adds that students understand vocabulary better when it is shown or heard visually or aurally. This means that even basic and low-cost tools can be helpful, as long as the teacher uses them with a clear learning goal in mind.

Despite these limitations, T1 recognizes that using technology for communicative activities is simply not possible given the lack of resources, but they mention that conversations and group

discussions still happen in class without any digital tools. T2 adds that team work becomes a key approach precisely because technology is not available, which shows that good teaching in this context depends more on the teacher's creativity than on having devices. This suggests that, while the lack of technology limits the use of technological tools in class, it does not stop students from developing their speaking skills, which can still grow through active, teacher-guided activities regardless of the resources available.

The last variable addressed in this analysis is English learning language outcomes (V3). The testimonies of T2 and T3 show that learning outcomes in this rural context are shaped by several interrelated factors that reinforce one another. The fact that T2 identifies speaking and listening as the most difficult skills to develop due to limited exposure to the language suggests that the problem is not only about technology but also about the context itself. In a rural setting where English is barely present outside the classroom, the lack of resources that could compensate for this absence, such as videos, audios or digital platforms, becomes a direct barrier to the development of these skills. On the other hand, T3's testimony that meeting the national curriculum under these conditions is not achievable, as the teachers feel the need to lower expectations and focus on basic goals such as everyday vocabulary, which limits the level of language proficiency students can reach and keeps a learning gap that is difficult to close without real changes in the learning environment.

7. DISCUSSION

The digital divide in rural settings has been widely documented in the literature. Sanders and Scanlon (2021) point out that rural areas have historically had less internet access and connectivity than urban areas, which is directly reflected in the findings of this study, where both students and teachers reported not having a functional connection that would allow them to carry out English language learning activities. However, what this study adds to that discussion is that the limitation is not simply one of infrastructure. Even when a computer lab exists, institutional decisions restrict its use, turning technological access into a double barrier that goes beyond just physical availability of resources.

Kormos and Wisdom (2021) for their part argue that the digital divide in rural contexts also manifests in the low frequency with which teachers manage to integrate technology into their classes. This aligns with what was found across both instruments: on the one hand, the interviewed teachers reported using technology only once a week or even once a month, constrained by the limited instructional time available. On the other, the majority of surveyed students indicated having no contact in any way with technological resources during their English classes. From our perspective as researchers, this suggests that addressing the technological limitation in this context requires not only providing the institution with resources,

but also rethinking the administrative and pedagogical decisions that determine how and when those resources are used.

The literature supports the idea that technology has a positive impact on the development of language skills when used consistently. Chong and Reinders (2020) note that technology-mediated tasks generate improvements in vocabulary, grammar, and comprehension, which aligns with the positive perception students expressed in the surveys regarding the use of technology to expand their vocabulary and improve their reading. However, T3 noted in the interview that the

use of technology in their classes is limited mainly to listening, and even then, it is not used consistently. This demonstrates that the potential of technology to develop language skills exists and is recognized by students, but the inconsistency of access prevents that potential from translating into real and sustained linguistic development.

Regarding productive skills, Warschauer (2003) argues that technology works best as a mediating tool when integrated into meaningful activities, rather than as the center of instruction. In this study, a considerable percentage of students perceive that technology is used for real communicative activities in class. However, the testimonies of T1 and T2 reveal that such activities are carried out without any technological support, evidencing a discrepancy between student perception and the reality reported by teachers. This suggests that what truly drives speaking development in this context are the active methodologies implemented by the teacher such as group conversations, and teamwork, which can sustain the development of this skill regardless of the available resources.

Regarding limited access to technological resources, the literature supports the idea that this lack has a negative effect on the development of English language skills. Yunga Albán et al. (2025) state that limited technological resources mainly affect listening comprehension, oral expression, written communication and verbal fluency among basic education students. This aligns with T2's testimony, who noted that listening and oral production are not fully developed, reinforcing the evidence that these skills are particularly affected in contexts with limited access to digital resources.

The findings related to English learning outcomes reveal a problem that goes beyond a simple lack of devices. Ferrín-Moreira et al. (2025) point out that insufficient access to technological resources and unstable connectivity in rural Ecuadorian settings limit students'

participation in digital learning environments, negatively affecting their academic performance. This is reflected in both the surveys and the interviews: most students acknowledge that the lack of technology hinders their English learning and that their performance would improve with greater access to these resources, while T2 and T3 confirm that the conditions of the rural context, where English is practically absent outside the classroom, turn the technological limitation into a direct barrier to the development of skills such as listening and speaking.

Beyond this, a particularly concerning finding emerges from the impact of these limitations on curricular expectations. According to the Ministerio de Educación del Ecuador (2012) the national English Language Learning Standards establish a progression based on the Common European Framework of Reference for Languages, in which students in Educación General Básica Superior are expected to reach level A1.1 by the end of 8th grade, A1.2 by the end of 9th grade, and A2.1 by the end of 10th grade. However, while the surveyed students show awareness of the potential that technology could have on their learning and classroom participation, T3 reveals that the inability to meet these curricular demands leads the teacher to reduce their goals and focus on minimal objectives such as basic vocabulary. This suggests that the technological limitation not only affects the learning process in the classroom but also generates a curricular gap that is difficult to close without real changes in the conditions of the educational environment.

8. PROPOSAL

Figura 1

Activity 1: Mystery Listener



Figura2

Activity 2: Our Roots in English



Figura3

Activity 3: Legends Alive



Link: https://drive.google.com/drive/folders/1Q_ABsp4YXXg98HK-w-DkbBGMiDYIUVT?usp=sharing

8.1 Introduction

In rural educational contexts, limited access to technological resources represents one of the most significant barriers to effective English language teaching and learning. The findings of this study revealed that students at Unidad Educativa ‘Rumipamba’ have minimal contact with digital tools during their English classes, which directly affects the development of listening and speaking skills. In response to this reality, this proposal presents a low-tech teaching guide with three activities structured under the Presentation, Practice, and Production (PPP) methodology (Harmer, 2007), designed to strengthen listening and speaking skills among rural adolescent learners without requiring internet connectivity or digital devices.

8.2 Objective

To design a low-tech teaching guide with three innovative activities based on the PPP methodology to support English language learning in listening and speaking skills among students of Educación General Básica Superior at Unidad Educativa ‘Rumipamba’.

8.3 Target group

This proposal is directed toward students of Unidad Educativa ‘Rumipamba’, located in La Esperanza, Ibarra, Ecuador. The target group consists of learners aged 12 to 14 years old who are enrolled in Educación General Básica Superior (8th, 9th, and 10th grades). According to the Ecuadorian English curriculum, their proficiency levels range from A1.1 to A2.1 of the Common European Framework of Reference for Languages (CEFR).

8.4 Description of the Activities

The guide comprises three low-tech strategies specifically designed to strengthen listening and speaking skills, which were identified as the most affected by technological limitations in this

study. Overall, each activity is adaptable to the three grade levels mentioned before, and requires no digital tools or internet connectivity, making them viable and sustainable pedagogical alternatives for rural EFL classrooms.

8.4.1 Activity 1: ‘Mystery Listener’

This activity consists of students listening to different descriptions in English and guessing the profession, place, or object being described. To demonstrate their understanding, students must draw their answers on a sheet of paper.

Stage 1: Presentation

The teacher models the activity by reading a sample description aloud and demonstrating response options. Key vocabulary and useful expressions are written on the board for reference:

- It has... / It is... / I think it is a...
- It lives in/on...

Stage 2: Practice

The teacher presents 3 riddles either by playing audio recordings or by reading them aloud. Students listen carefully and draw the profession, place, or object they think is being described on a sheet of paper. Then, the teacher asks volunteers to share their answers, reveals the correct response, and provides immediate feedback. Students repeat the target vocabulary and identify the clues that helped them guess the answer.

Stage 3: Production

After completing their drawings, students select one profession, place, or object and present it to the class. Using simple sentences provided during the presentation stage, they describe their drawing with expressions such as It is a..., People go there to..., or He/She works in.

8.4.2 Activity 2: ‘Our Roots in English’

This activity consists of students bringing a culturally meaningful object from their home or community and working in teams to prepare a short presentation in English. They describe what the object is, how it is used and why it is important in their community using a guided structure. Finally, each group presents their object to the class while their classmates listen, identify key information and share what they learned about local traditions and cultural practices.

Stage 1: Presentation

The teacher presents a cultural object and models how to describe it using guided structures. Key vocabulary can be built collectively with students on the board:

- This is a... / We use it for...
- It is important because...

Stage 2: Practice

Students form groups of three to four to examine their objects and prepare a presentation using the guided structure on the board. Each student is assigned a specific part.

Stage 3: Production

Each student delivers their oral presentation to the class. The audience listens and writes down two things or new words they have learned.

8.4.3 Activity 3: ‘Legends Alive’

This activity consists of students working in groups to prepare and perform a local legend in English. The legends are ‘La Laguna de Yaguarcocha’ and ‘El Taita Imbabura y la Mama Cotacachi’ are presented through simplified scripts with assigned roles and pre-written lines, allowing students to practice and perform the stories collaboratively.

Stage 1: Presentation

The teacher divides the class into two teams, and provides each with one legend. First, they review the key vocabulary and expressions from the scripts, and read it aloud one to model pronunciation and intonation.

Stage 2: Practice

Students are assigned roles according to the scripts. The teacher circulates to support pronunciation and expression, encouraging students to add simple gestures and movements.

Stage 3: Production

Each team performs the legend in front of the class. At the end of each performance, the teacher asks simple questions to the audience to check comprehension, and they provide feedback.

9. CONCLUSIONS

- The findings revealed that limited technological resources negatively affect English language learning outcomes among students in the selected rural educational setting. Students recognized the educational value of technology and perceived those digital tools could improve their vocabulary development, reading comprehension, classroom participation, and overall learning experience. However, restricted access to technological resources limits their opportunities to benefit from these advantages, affecting their English language development.
- The study demonstrated that technological limitations identified in this rural context are not exclusively related to the absence of resources, but also to the restricted use of the resources already available. Although the institution has a computer laboratory, both students and teachers reported limited access to it, while unreliable internet connectivity further reduces opportunities for technology integration. These conditions contribute to the persistence of the digital divide and hinder the effective incorporation of technology into English language instruction.
- The results showed that listening and speaking are the language skills most affected by limited technological resources. Despite the teachers' efforts to provide their own resources, such as speakers, students have very limited exposure to English in the classroom, resulting in fewer opportunities for authentic language input and communicative practice. Consequently, students face greater difficulties in developing oral communication and listening comprehension skills.

- Teachers attempt to compensate for technological limitations through collaborative learning activities, conversations, group discussions, and other active methodologies. Although these strategies promote student participation and support language development, they are not sufficient to fully overcome the technological limitations present in the rural context. As a result, teachers are often forced to reduce instructional expectations and focus on basic language objectives, making it difficult to achieve the English proficiency levels established by the national curriculum

10. RECOMMENDATIONS

- School authorities and educational policymakers should increase students' access to technological resources that support English language learning. Providing regular opportunities to use computers, digital devices, and educational technologies can enhance student engagement and create more effective learning experiences that contribute to improve English language outcomes.
- Educational system should establish policies that promote the effective and consistent use of existing technological resources. Greater access to the computer laboratory, improved internet connectivity, and better coordination regarding the use of available resources would help reduce the impact of the digital divide and support technology integration in English classes.
- English teachers should increase students' exposure to authentic English input, particularly to support the development of listening and speaking skills. Whenever technological resources are available, teachers should incorporate audio materials, videos, and other digital resources that provide opportunities for meaningful language practice. This may help compensate for the limited exposure to English that students experience outside the classroom.

- Continuous professional development opportunities should be provided to English teachers working in rural settings, focusing on technology integration and innovative teaching strategies. Strengthening teachers' digital and pedagogical competencies would help maximize the educational value of available resources and support the achievement of the learning outcomes established by the national curriculum.

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12. APPENDICES

12.1 Appendix 1

Instrument 1: Survey administered to students 12-14 at Unidad Educativa ‘Rumipamba’.

Unidad Educativa “Rumipamba”

DATOS INFORMATIVOS:

Edad:

Nivel:

Sexo:

Estimado(a) estudiante:

La presente encuesta tiene la finalidad de recopilar datos informativos sobre su proceso de aprendizaje del idioma inglés mediante el uso de recursos tecnológicos en la Unidad Educativa Rumipamba. Sus respuestas serán de información exclusivamente para realizar el proyecto de investigación que se pretende aplicar en la Unidad Educativa, las mismas que serán utilizadas únicamente con fines de mejora institucional. De la manera más comedida responder con sinceridad a las preguntas establecidas, ya que se utilizará con fines investigativos.

De antemano, muchas gracias por su colaboración.

Responda a las preguntas siguiendo la siguiente escala donde ‘Totalmente de acuerdo’ es el máximo valor y ‘Totalmente en desacuerdo’ es el mínimo.

ESCALA DE LIKERT		
1 Totalmente en desacuerdo	2 En desacuerdo	3 Ni de acuerdo ni en desacuerdo/ Neutral
4 De acuerdo	5 Totalmente de acuerdo	

Ten en cuenta que los recursos tecnológicos son herramientas como computadoras, celulares, internet, audios, videos y aplicaciones para aprender.

Lee cada pregunta y subraya la respuesta que tú consideres correcta.

1. ¿Existe un laboratorio de computación en tu escuela disponible para usar en las clases de inglés?

- No hay laboratorio
- Sí hay, pero no nos dejan usarlo
- Sí hay, pero casi nunca nos lo prestan
- Sí hay, y nos lo prestan a veces
- Sí hay, y podemos usarlo cuando queremos

2) ¿Qué recursos tecnológicos usa el docente de inglés en tu clases? Puedes seleccionar más de una opción.

- Computadoras
- Tablets
- Proyector
- Parlantes
- Micrófono
- Cámara
- Internet
- Ninguno de los anteriores

3) ¿Con qué frecuencia puedes acceder a estos recursos tecnológicos durante las clases de inglés?

- Nunca
- Raramente (1 vez al mes o menos)
- A veces (2-3 veces al mes)
- Frecuentemente (1-2 veces por semana)
- Siempre

4) ¿La conexión a internet en tu institución es buena y te permite realizar actividades de aprendizaje de inglés sin problemas?

1. Totalmente en desacuerdo

2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

5) ¿El docente de inglés usa audios y canciones que te permiten entender mejor cuando alguien habla en inglés?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

6) ¿En las clases de inglés se utiliza la tecnología (celular, computadora o internet) para practicar el idioma en actividades comunicativas reales, como dramatizaciones, conversaciones o presentaciones?

1. Muy frecuentemente
2. Frecuentemente
3. A veces
4. Poco frecuente
5. Nunca

7) ¿Ver y escuchar inglés en películas y videos de YouTube te ha ayudado a hablar mejor inglés?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

8) ¿El uso de la tecnología en las clases de inglés (videos, audios o aplicaciones) te ha ayudado a aprender nuevas palabras y a formar mejor las oraciones en inglés?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

9) ¿Leer textos digitales y libros en línea te ha ayudado a mejorar tu lectura en inglés?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

10) ¿Usar computadoras o tablets te ha ayudado a escribir en inglés con tus propias palabras, sin copiar o traducir todo con el traductor?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

11) ¿Recuerdas mejor lo aprendido cuando se usa tecnología (videos, aplicaciones, audios) que cuando solo estudias del libro u hojas de trabajo?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

12) ¿Participas más en clase cuando el profesor usa tecnología que cuando solo usa la pizarra y el libro?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

13) ¿La falta de computadoras, internet y otros recursos tecnológicos hace más difícil que aprendas inglés?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

14) ¿Tu rendimiento en inglés sería mejor si la escuela tuviera más recursos tecnológicos?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

12.2 Appendix 2

Instrument 2: Interview conducted with English teachers

INTERVIEW

Research Project: ‘The Impact of Limited Technological Resources on English Language Learning Outcomes Among 12-14-Year-Old Students in a Rural Educational Setting’.

INTERVIEW INFORMATION

Interviewer:

Date:

Time:

INTERVIEWEE INFORMATION

Name:

Position: English Teacher

Institution: Unidad Educativa ‘Rumipamba’

Years of Teaching Experience:

Less than 1 ☐ year	1-3 ☐ years	4-6 years ☐	7-10 years ☐	More than ☐ 10 years
--	---	---	--	--

Grades Currently Teaching:

OBJECTIVE

Analyze the impact of limited technological resources on English language learning outcomes and the development of linguistic skills in 12-14-year-old students at Rumipamba Educational Unit, through the evaluation of the availability, use, and effectiveness of technological tools compared to traditional methods in a rural educational setting.

QUESTIONS

1. What technological resources are available in your school for teaching English?
2. Have you received training in the correct use of technological resources?
3. What difficulties do you face when using technology in your English lessons in this rural context?
4. How often do you use these technological resources in your English classes?
5. From your experience, do you notice differences in your students' learning and participation when you use technology compared to traditional methods?
6. How often do you use technological resources (audios, videos, applications, digital texts) to develop your students' listening, speaking, reading and writing skills?

7. Which English skills have you seen improve in your students when you use technological resources, and how have they improved?
8. Do you use technology to promote real communication activities in English, such as conversations, role plays, or presentations? Please explain.
9. How does the use or lack of technology affect students' learning vocabulary and the use of grammar in English?
10. Do you think technology helps students write in English using their own ideas, or do students usually depend too much on the translator? Please explain.
11. According to the English curriculum and skills-based assessment, what improvements have you observed in your students' learning outcomes when you use technological resources in class?
12. Do you consider that the lack or limitation of technological resources affects your students' academic performance in English? In what way?
13. From your point of view, how would students' English learning improve if the school had more technological resources?

12.3 Appendix 3

Instrument 3: Request for Authorization to Collect Data at Unidad Educativa 'Rumipamba'

 **Pontificia Universidad Católica del Ecuador**
Seréis mis testigos

IBARRA

50 Años
1974-2024

ESCUELA DE CIENCIAS SOCIALES
Y HUMANIDADES

Ibarra, 09 de Enero del 2026

Mgs. Ana Bedón
RECTORA DE LA UNIDAD EDUCATIVA "RUMIPAMBA"

De nuestra consideración,

Por medio de la presente nos dirigimos a usted muy respetuosamente para solicitar el permiso correspondiente para realizar nuestro proyecto de investigación en la Institución, titulado como 'The Impact of Limited Technological Resources on English Language Learning Outcomes among 12-14-year-old students in a rural educational setting'. Con el fin de aplicar las técnicas de investigación de la encuesta y entrevista a los docentes de inglés y a los estudiantes de Educación General Básica (EGB).

Esperando que usted acepte nuestra solicitud, nos comprometemos en cumplir con todos los reglamentos, horarios de trabajo que podemos acordar entre partes y sobre todo contribuir con aportes técnicos de nuestro proyecto de investigación en beneficio de su organización.

Anticipamos nuestro sincero agradecimiento

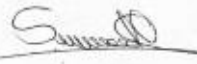
Atentamente,


Katty Barrera
Estudiante de la Carrera de
Pedagogía de los Idiomas Nacionales y Extranjeros
PUCEI


Lucia Campues
Estudiante de la Carrera de
Pedagogía de los Idiomas Nacionales y Extranjeros
PUCEI

Ci: 1005378417
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Sandra Ayala
Asesora del proyecto de investigación
Docente PUCEI


UNIDAD EDUCATIVA "RUMIPAMBA"
RECTORADO

Dirección: Av. Jorge Guzmán Rueda y Av. Aurelio Espinosa Pólit, Ciudadela "La Victoria".
Teléf: 2615 500 / 2615 631 Ext. 2623 Cel. 0999850017
Ibarra - Ecuador / www.pucesi.edu.ec



12.4 Appendix 4

Instrument 1 Results: Survey Applied to 8th, 9th, and 10th-Grade Students of Parallel A

Unidad Educativa "Rumipamba"

DATOS INFORMATIVOS:

Edad: 13

Nivel: 8 A

Sexo: Femenino

Estimado(a) estudiante:

La presente encuesta tiene la finalidad de recopilar datos informativos sobre su proceso de aprendizaje del idioma inglés mediante el uso de recursos tecnológicos en la Unidad Educativa Rumipamba. Sus respuestas serán de información exclusivamente para realizar el proyecto de investigación que se pretende aplicar en la Unidad Educativa, las mismas que serán utilizadas únicamente con fines de mejora institucional. De la manera más comedida responder con sinceridad a las preguntas establecidas, ya que se utilizará con fines investigativos.

De antemano, muchas gracias por su colaboración.

Responda a las preguntas siguiendo la siguiente escala donde 'Totalmente de acuerdo' es el máximo valor y 'Totalmente en desacuerdo' es el mínimo.

ESCALA DE LIKERT		
1 Totalmente en desacuerdo	2 En desacuerdo	3 Ni de acuerdo ni en desacuerdo/ Neutral
4 De acuerdo	5 Totalmente de acuerdo	

Ten en cuenta que los recursos tecnológicos son herramientas como computadoras, celulares, internet, audios, videos y aplicaciones para aprender.

Lee cada pregunta y subraya la respuesta que tú consideres correcta.

1. ¿Existe un laboratorio de computación en tu escuela disponible para usar en las clases de inglés?

- ☒ No hay laboratorio
- ☐ Si hay, pero no nos dejan usarlo
- ☐ Si hay, pero casi nunca nos los prestan
- ☐ Si hay, y nos lo prestan a veces
- ☐ Si hay, y podemos usarlo cuando queremos

2) ¿Qué recursos tecnológicos usa el docente de inglés en tu clases? Puedes seleccionar más de una opción.

- Computadoras
- Tablets
- Proyector
- Parlantes
- Micrófono
- Cámara
- Internet
- Ninguno de los anteriores

3) ¿Con qué frecuencia puedes acceder a estos recursos tecnológicos durante las clases de inglés?

- Nunca
- Raramente (1 vez al mes o menos)
- A veces (2-3 veces al mes)
- Frecuentemente (1-2 veces por semana)
- Siempre

4) ¿La conexión a internet en tu institución es buena y te permite realizar actividades de aprendizaje de inglés sin problemas?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

5) ¿El docente de inglés usa audios y canciones que te permiten entender mejor cuando alguien habla en inglés?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

6) ¿En las clases de inglés se utiliza la tecnología (celular, computadora o internet) para practicar el idioma en actividades comunicativas reales, como dramatizaciones, conversaciones o presentaciones?

1. Muy frecuentemente
2. Frecuentemente
3. A veces
4. Poco frecuente
5. Nunca

7) ¿Ver y escuchar inglés en películas y videos de YouTube te ha ayudado a hablar mejor inglés?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

8) ¿El uso de la tecnología en las clases de inglés (videos, audios o aplicaciones) te ha ayudado a aprender nuevas palabras y a formar mejor las oraciones en inglés?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

9) ¿Leer textos digitales y libros en línea te ha ayudado a mejorar tu lectura en inglés?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

10) ¿Usar computadoras o tablets te ha ayudado a escribir en inglés con tus propias palabras, sin copiar o traducir todo con el traductor?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

11) ¿Recuerdas mejor lo aprendido cuando se usa tecnología (videos, aplicaciones, audios) que cuando solo estudias del libro u hojas de trabajo?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

12) ¿Participas más en clase cuando el profesor usa tecnología que cuando solo usa la pizarra y el libro?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

13) ¿La falta de computadoras, internet y otros recursos tecnológicos hace más difícil que aprendas inglés?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

14) ¿Tu rendimiento en inglés sería mejor si la escuela tuviera más recursos tecnológicos?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

Unidad Educativa "Rumipamba"

DATOS INFORMATIVOS:

Edad: 13 años

Nivel: 9º A

Sexo: mujer

Estimado(a) estudiante:

La presente encuesta tiene la finalidad de recopilar datos informativos sobre su proceso de aprendizaje del idioma inglés mediante el uso de recursos tecnológicos en la Unidad Educativa Rumipamba. Sus respuestas serán de información exclusivamente para realizar el proyecto de investigación que se pretende aplicar en la Unidad Educativa, las mismas que serán utilizadas únicamente con fines de mejora institucional. De la manera más comedida responder con sinceridad a las preguntas establecidas, ya que se utilizará con fines investigativos.

De antemano, muchas gracias por su colaboración.

Responda a las preguntas siguiendo la siguiente escala donde 'Totalmente de acuerdo' es el máximo valor y 'Totalmente en desacuerdo' es el mínimo.

ESCALA DE LIKERT		
1 Totalmente en desacuerdo	2 En desacuerdo	3 Ni de acuerdo ni en desacuerdo/ Neutral
4 De acuerdo	5 Totalmente de acuerdo	

Ten en cuenta que los recursos tecnológicos son herramientas como computadoras, celulares, internet, audios, videos y aplicaciones para aprender.

Lee cada pregunta y subraya la respuesta que tú consideres correcta.

1. ¿Existe un laboratorio de computación en tu escuela disponible para usar en las clases de inglés?

- No hay laboratorio
- **Sí hay, pero no nos dejan usarlo**
- Sí hay, pero casi nunca nos los prestan
- Sí hay, y nos lo prestan a veces
- Sí hay, y podemos usarlo cuando queremos

2) ¿Qué recursos tecnológicos usa el docente de inglés en tu clases? Puedes seleccionar más de una opción.

- Computadoras
- Tablets
- Proyector
- Parlantes
- Micrófono
- Cámara
- Internet
- Ninguno de los anteriores

3) ¿Con qué frecuencia puedes acceder a estos recursos tecnológicos durante las clases de inglés?

- Nunca
- Raramente (1 vez al mes o menos)
- A veces (2-3 veces al mes)
- Frecuentemente (1-2 veces por semana)
- Siempre

4) ¿La conexión a internet en tu institución es buena y te permite realizar actividades de aprendizaje de inglés sin problemas?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral

4. De acuerdo

5. Totalmente de acuerdo

5) ¿El docente de inglés usa audios y canciones que te permiten entender mejor cuando alguien habla en inglés?

1. Totalmente en desacuerdo
2. En desacuerdo

3. Ni de acuerdo ni en desacuerdo/ Neutral

4. De acuerdo

5. Totalmente de acuerdo

6) ¿En las clases de inglés se utiliza la tecnología (celular, computadora o internet) para practicar el idioma en actividades comunicativas reales, como dramatizaciones, conversaciones o presentaciones?

1. Muy frecuentemente
2. Frecuentemente
3. A veces
4. Poco frecuente
5. Nunca

7) ¿Ver y escuchar inglés en películas y videos de YouTube te ha ayudado a hablar mejor inglés?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

8) ¿El uso de la tecnología en las clases de inglés (videos, audios o aplicaciones) te ha ayudado a aprender nuevas palabras y a formar mejor las oraciones en inglés?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

9) ¿Leer textos digitales y libros en línea te ha ayudado a mejorar tu lectura en inglés?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

10) ¿Usar computadoras o tablets te ha ayudado a escribir en inglés con tus propias palabras, sin copiar o traducir todo con el traductor?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral

4. De acuerdo

5. Totalmente de acuerdo

11) ¿Recuerdas mejor lo aprendido cuando se usa tecnología (videos, aplicaciones, audios) que cuando solo estudias del libro u hojas de trabajo?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral

4. De acuerdo

5. Totalmente de acuerdo

12) ¿Participas más en clase cuando el profesor usa tecnología que cuando solo usa la pizarra y el libro?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral

4. De acuerdo

5. Totalmente de acuerdo

13) ¿La falta de computadoras, internet y otros recursos tecnológicos hace más difícil que aprendas inglés?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral

4. De acuerdo

5. Totalmente de acuerdo

14) ¿Tu rendimiento en inglés sería mejor si la escuela tuviera más recursos tecnológicos?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

Unidad Educativa "Rumipamba"

DATOS INFORMATIVOS:

Edad: 14

Nivel: 10^{mo} A

Sexo: Masculino

Estimado(a) estudiante:

La presente encuesta tiene la finalidad de recopilar datos informativos sobre su proceso de aprendizaje del idioma inglés mediante el uso de recursos tecnológicos en la Unidad Educativa Rumipamba. Sus respuestas serán de información exclusivamente para realizar el proyecto de investigación que se pretende aplicar en la Unidad Educativa, las mismas que serán utilizadas únicamente con fines de mejora institucional. De la manera más comedida responder con sinceridad a las preguntas establecidas, ya que se utilizará con fines investigativos.

De antemano, muchas gracias por su colaboración.

Responda a las preguntas siguiendo la siguiente escala donde 'Totalmente de acuerdo' es el máximo valor y 'Totalmente en desacuerdo' es el mínimo.

ESCALA DE LIKERT		
1 Totalmente en desacuerdo	2 En desacuerdo	3 Ni de acuerdo ni en desacuerdo/ Neutral
4 De acuerdo	5 Totalmente de acuerdo	

Ten en cuenta que los recursos tecnológicos son herramientas como computadoras, celulares, internet, audios, videos y aplicaciones para aprender.

Lee cada pregunta y subraya la respuesta que tú consideres correcta.

1. ¿Existe un laboratorio de computación en tu escuela disponible para usar en las clases de inglés?

- No hay laboratorio
- Sí hay, pero no nos dejan usarlo
- Sí hay, pero casi nunca nos los prestan
- Sí hay, y nos lo prestan a veces
- Sí hay, y podemos usarlo cuando queremos

2) ¿Qué recursos tecnológicos usa el docente de inglés en tu clases? Puedes seleccionar más de una opción.

- Computadoras
- Tablets
- Proyector
- Parlantes
- Micrófono
- Cámara
- Internet
- Ninguno de los anteriores

3) ¿Con qué frecuencia puedes acceder a estos recursos tecnológicos durante las clases de inglés?

- Nunca
- Raramente (1 vez al mes o menos)
- A veces (2-3 veces al mes)
- Frecuentemente (1-2 veces por semana)
- Siempre

4) ¿La conexión a internet en tu institución es buena y te permite realizar actividades de aprendizaje de inglés sin problemas?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

5) ¿El docente de inglés usa audios y canciones que te permiten entender mejor cuando alguien habla en inglés?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

6) ¿En las clases de inglés se utiliza la tecnología (celular, computadora o internet) para practicar el idioma en actividades comunicativas reales, como dramatizaciones, conversaciones o presentaciones?

1. Muy frecuentemente
2. Frecuentemente
3. A veces
4. Poco frecuente
5. Nunca

7) ¿Ver y escuchar inglés en películas y videos de YouTube te ha ayudado a hablar mejor inglés?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

8) ¿El uso de la tecnología en las clases de inglés (videos, audios o aplicaciones) te ha ayudado a aprender nuevas palabras y a formar mejor las oraciones en inglés?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

9) ¿Leer textos digitales y libros en línea te ha ayudado a mejorar tu lectura en inglés?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

10) ¿Usar computadoras o tablets te ha ayudado a escribir en inglés con tus propias palabras, sin copiar o traducir todo con el traductor?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

11) ¿Recuerdas mejor lo aprendido cuando se usa tecnología (videos, aplicaciones, audios) que cuando solo estudias del libro u hojas de trabajo?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

12) ¿Participas más en clase cuando el profesor usa tecnología que cuando solo usa la pizarra y el libro?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

13) ¿La falta de computadoras, internet y otros recursos tecnológicos hace más difícil que aprendas inglés?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

14) ¿Tu rendimiento en inglés sería mejor si la escuela tuviera más recursos tecnológicos?

1. Totalmente en desacuerdo
2. En desacuerdo
3. Ni de acuerdo ni en desacuerdo/ Neutral
4. De acuerdo
5. Totalmente de acuerdo

12.5 Appendix 5

Tabla 2

Transcription of Interviews with English Teachers from Unidad Educativa 'Rumipamba'

TRANSCRIPTION OF INTERVIEWS WITH ENGLISH TEACHERS FROM UNIDAD EDUCATIVA 'RUMIPAMBA'				
VARIABLE	QUESTION	TEACHER 1 (T1): FEMALE	TEACHER 2 (T2): FEMALE	TEACHER 3 (T3): MALE
V1: LIMITED TECHNOLOGICAL RESOURCES	1. ¿Qué recursos tecnológicos están disponibles en su institución educativa para la enseñanza del inglés?	En el colegio existe la apertura, pero muy poca para un laboratorio que se usa también para informática, pero en sí, no es uno específico de inglés y en la escuela ninguno. Más que los propios recursos que nosotros como docentes traemos, ya sea un parlante, un video, pero en sí no existe ningún material tecnológico.	Partiendo de la realidad, no disponemos de un centro de audiovisuales para el proceso de enseñanza, aprendizaje del idioma. Sin embargo, muy pocas veces se solicita el centro de cómputo. Nos pueden facilitar una hora en semana para cada grado. No es siempre, pero al menos es la oportunidad que	No hay recursos, solo hay el laboratorio que no es específicamente para inglés

			tenemos para acercar a los chicos al uso de los tics.	
	2. ¿Ha recibido capacitación sobre el uso adecuado de recursos tecnológicos?	No, porque no disponemos.	Todo el tiempo, la universidad siempre vela por mantener a sus docentes actualizados. También dentro del magisterio tenemos una página de capacitación que se llama Me Capacito, en el que constantemente estamos actualizándonos.	No, por esa razón yo me capacito de manera autónoma.
	3. ¿Qué dificultades enfrenta al utilizar tecnología en sus clases de inglés en este contexto rural?	Que los estudiantes no cuentan tampoco con recursos informáticos en casa. Por ende, se dificulta porque no saben tampoco nada del manejo de.	La escasa infraestructura que existe para acceder al proceso de enseñanza por medio de esas herramientas o de sus recursos.	Bueno, aquí el problema es que no hay un laboratorio, pero como le digo, traigo la compu y así nomás con la pantalla de la compu, porque

				usted sabe que un infocus es caro.
	4. ¿Con qué frecuencia utiliza estos recursos tecnológicos en sus clases de inglés?	Cuando se trae, como le decía el personal, tal vez una vez a la semana.	De forma personal, un parlante, el celular con nuestros propios datos para la conexión, pero no están funcionando porque los chicos no disponen de teléfonos celulares, entonces no te podría decir que frecuentemente utilizamos, a escasez de eso utilizamos y manejamos más recursos del medio, carteles, láminas, hojas de trabajo, que muchas veces los pagamos con nuestros propios recursos porque	Más en lo que es speaking o a veces un video para reforzar como gramática. En el mes una vez, porque no alcanza el tiempo. Solo tengo tres horas de inglés.

			los chicos no tienen.	
V2: ENGLISH LANGUAGE LEARNING OUTCOMES	5. Desde su experiencia, ¿nota diferencias en el aprendizaje y la participación de sus estudiantes cuando utiliza tecnología en comparación con los métodos tradicionales?	Sí, porque prestan más atención y se les convierte como algo novedoso, entonces les llama la atención saber qué va a pasar.	Obviamente, es más divertido para ellos, es más ameno y más didáctico.	Claro, aprenden, como que les llama más la atención y los estudiantes están más motivados.
V3: ENGLISH LANGUAGE SKILLS	6. ¿Con qué frecuencia usa recursos tecnológicos (audios, videos, aplicaciones, textos digitales) para desarrollar las habilidades de listening, speaking, reading y	Dependiendo del tema que nos toque, generalmente se utilizan unas tres veces por cada tema, sería en promedio unas dos veces a la semana. Parlante. Es lo único que podemos porque no disponen los otros.	Solo se dispone de un parlante propio y el teléfono celular. A menudo, en lo que se puede, acuerdo al tema, de acuerdo a la destreza que nos toque como plan de lección, lo hacemos.	Por lo general, dentro de las horas de clase, como le dije más con el parlante para desarrollar la habilidad del listening.

	writing en sus estudiantes?			
	7. ¿Qué habilidades de inglés ha visto mejorar en sus estudiantes cuando utiliza recursos tecnológicos y de qué manera han mejorado?	Aprender lo que son verbos, ¿no? Eso aprende como que captan de mejor manera cuando se utilizan recursos ya sea no tecnológicos en específico como flashcards o material didáctico eso les llama bastante la atención y se ve que prestan mayor atención y pueden de una mejor manera mostrándoles algo visual. Ajá, y tal vez con los speakers también ha hecho este refuerzo de los verbos. Sí, le gusta lo que son por ejemplo las canciones.	Ninguna	Más sería la del listening porque más se le da de trabajar con eso y ellos ya a veces se admiran. O como que se sorprenden al comienzo, ¿qué es eso? O que hablan muy rápido.
	8. ¿Utiliza la tecnología para promover	En sí no se puede, ¿no? Porque como le indicaba, no disponemos de los	El trabajo en equipo es fundamental en base a lo que no se	Sí, utiliza algunas actividades de comunicación

	actividades de comunicación real en inglés, como conversaciones , juegos de roles o presentaciones ? Por favor, explique.	recursos tecnológicos, pero sí se lo hace de manera manual, por así decirlo, Se establecen conversaciones entre grupos, entre los estudiantes, se les da un tema de algo que hablen y sí pueden expresarse.	dispone. Tratamos siempre de innovar porque no necesariamente necesitamos la tecnología para innovar. Tratamos de que los chicos de a poco vayan desarrollando sus destrezas.	real en inglés, como presentaciones . Sin embargo, el uso de tecnología para este tipo de actividades es muy limitado debido a la falta de recursos, problemas de infraestructura y dificultades de los estudiantes para comprender materiales como audios.
V2: ENGLISH LANGUAGE LEARNING OUTCOMES	9. ¿Cómo afecta el uso o la falta de tecnología al aprendizaje del vocabulario y al uso de la gramática en	O sea, no tener cosas visuales que les llame la atención, a los que les gusta la materia pues le ponen empeño ya sea a la gramática o a lo que se les enseña, pero	La falta de tecnología, como te digo, no todo lo que sea tecnológico es innovador. Nosotros como docentes para eso nos preparamos	Sí, yo creo que si afecta mucho porque estamos en una era tecnológica y los estudiantes en vez de estudiar,

	inglés por parte de los estudiantes?	el resto si necesita como que motivarle más para que pueda aprender, pero sí es necesario un recurso tecnológico	para saber de qué manera desarrollamos esas destrezas en los chicos y nada, vamos innovando de otra manera, sin tecnología con proyectos en clases, hojas de trabajo.	utilizan otras aplicaciones. Hay otro factor también, es prohibido el uso del celular en las horas de clases.
V3: ENGLISH LANGUAGE SKILLS	10. ¿Cree que la tecnología ayuda a los estudiantes a escribir en inglés utilizando sus propias ideas o que los estudiantes suelen depender demasiado del traductor? Por favor, explique.	Sí, dependen bastante. este caso, como no tienen tecnología, utilizamos lo que es el diccionario. Pero sí se les facilita el momento en el que, por ejemplo, se les pone palabras a completar. Ellos ya saben qué letra es la que les está faltando. Pero esto es todo gracias al diccionario, más no a un recurso tecnológico.	Cuales guías, independientemente de esa tecnología, hojas de trabajo, cuando tienen la guía que se requiere desarrollan la destreza de acuerdo al objetivo de la clase. Pero cuando tú no tienes claro los objetivos de esa clase, los chicos hacen otras cosas y no se desarrollan los objetivos.	Sí, por lo general dependen más de la IA que del traductor. Por ejemplo, cuando se les manda deberes nomas ya se sabe quién si hizo y quien uso IA

V2: ENGLISH LANGUAGE LEARNING OUTCOMES

	11. De acuerdo con el currículo de inglés y la evaluación basada en habilidades, ¿qué mejoras ha observado en los resultados de aprendizaje de sus estudiantes cuando utiliza recursos tecnológicos en clase?	No hay mejora, la verdad, porque el currículo, esta nueva propuesta propone que los estudiantes lleguen a un nivel B2 y en los sectores rurales es imposible. Por la falta de recursos tecnológicos y por la falta también de material, se podría decir...	Yo veo bastantes mejoras en las destrezas básicas. Leer y escribir. Me cuesta mucho la producción oral y el listening puesto que no están muy expuestos.	El currículo es muy avanzado, al menos aquí en la sección rural es súper difícil. No se avanza tanto. Más bien yo me enfoco en que ellos aprendan más vocabulario y con eso puedan hablar cosas comunes.
	12. ¿Considera que la falta o limitación de recursos tecnológicos afecta el rendimiento académico de sus estudiantes en inglés? ¿De qué manera?	En el bajo rendimiento en las calificaciones por el desinterés porque prácticamente lo que se puede enseñar en sí son temas de gramática, sea, writing, el saber escribir, ver los verbos, pero a ellos les toca ingeniarse, por ejemplo,	Notablemente no afecta, porque te digo que nosotros como docentes vemos la manera de sacar adelante los objetivos planteados, pero sí tiene su grado de dificultad en el desarrollo de sus destrezas no utilizables.	Si, porque si tenían un laboratorio ellos aprenderían más y se sentirían más motivados a aprender el lenguaje.

		aprender un verbo no es que yo les puedo traer para proyectarles a ver qué acción está realizando este estudiante, qué dibujito aparece ahí, entonces ellos tienen que hacerlo de manera manual, tal vez con dibujos, aquí hay que innovar entre lo que tenemos. no con recursos tecnológicos.		
	13. Desde su punto de vista, ¿cómo mejoraría el aprendizaje de inglés de los estudiantes si la institución contara con más recursos tecnológicos?	Sí, habría un incremento de un 50%, porque como le digo, esto les motiva a los estudiantes el saber que van a hacer algo diferente, les llama hasta la atención y le ponen empeño para después otra clase volver a usar este tipo de tecnologías,	Hemos solicitado organizar el horario para que todos los cursos almenos tengan 1 vez por semana acceso al laboratorio hemos querido hacer otra gestion para que nos donen auriculares y la pantalla si hay vamos a ver si es	Yo creo que sí mejoraría bastante porque ya teniendo un laboratorio de inglés ya ellos se sienten más motivados y ellos mismos van a poner el empeño a aprender y no solo una skill

		entonces eso les motiva.	que de una u otra manera nos permiten el acceso a los laboratorios con los estudiantes para el año lectivo que viene.	sino todas las skills.
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12.6. Appendix 6: Analysis of Survey Results and Figures

Figura 4

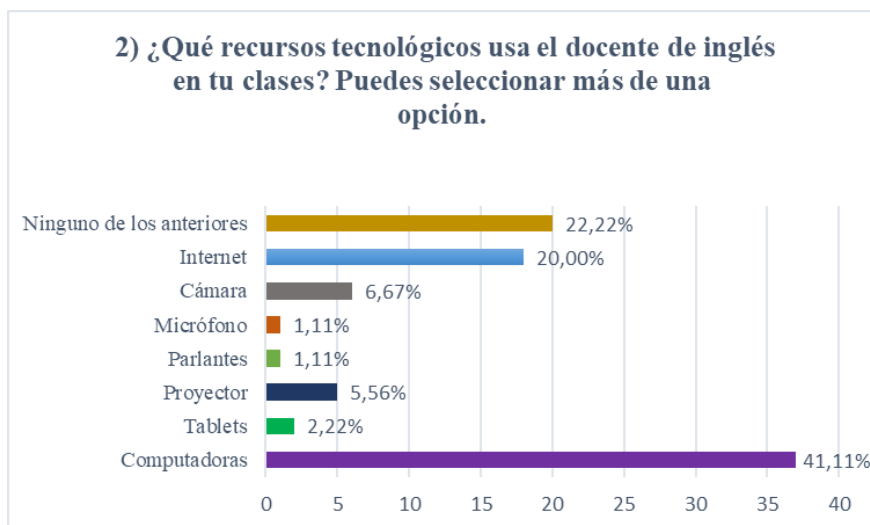
Question 1



The data collected from Question 1 shows that the majority of participants face significant barriers to accessing the computer lab specifically for English classes. While most participants affirm that there is a lab within the institution, only a small minority report having open access to it. Furthermore, the predominant response indicates that the lab exists but students are not allowed to use it, followed by those who can only access it rarely.

Figura 5

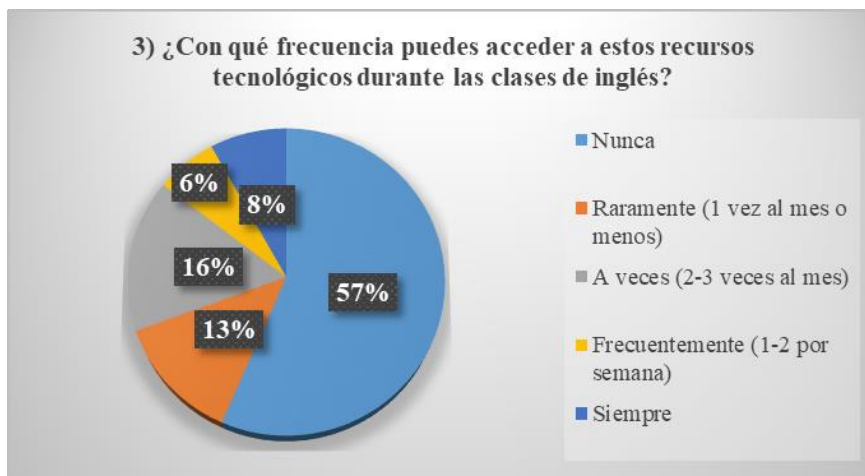
Question 2



The data reveals that computers represent the most frequently reported resource, followed by a considerable proportion of students who indicated that none of the listed technological tools are used in their English classes. Internet access was the third most mentioned resource, while other tools such as tablets, projectors, speakers, microphones, and cameras were reported by only a small minority of students.

Figura 6

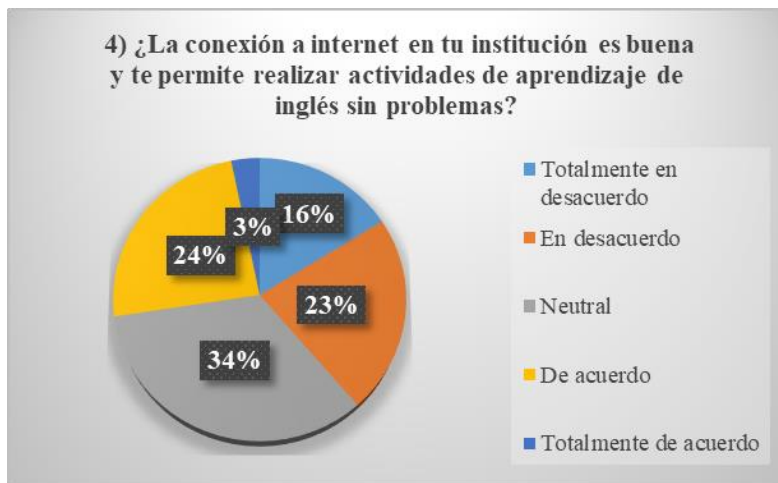
Question 3



The data gathered indicates that the majority of students report having no access to technological resources during their English classes, while the remaining responses are distributed among those who access them rarely, sometimes, or frequently. Only a very small proportion of students indicated having consistent access to these resources.

Figura 7

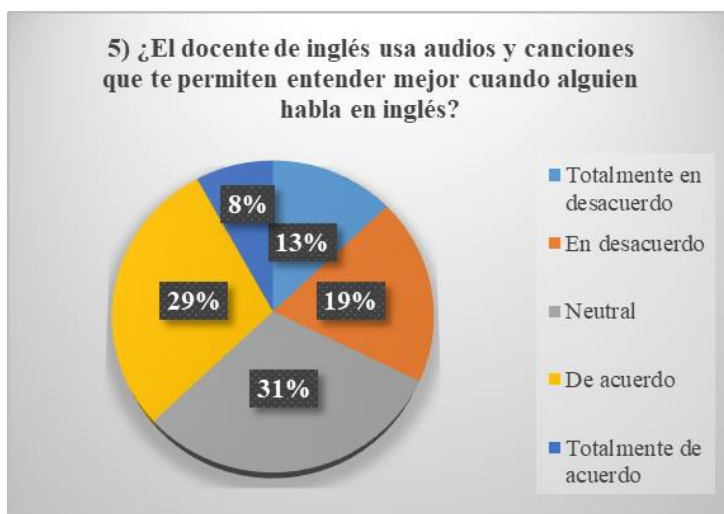
Question 4



The data indicates that the majority of students do not perceive the institution's internet connection as reliable enough to support English learning activities without difficulties. The largest proportion of responses falls within the neutral category, followed by those who disagreed or strongly disagreed. Only a small minority of students expressed a positive perception of the institution's connectivity.

Figura 8

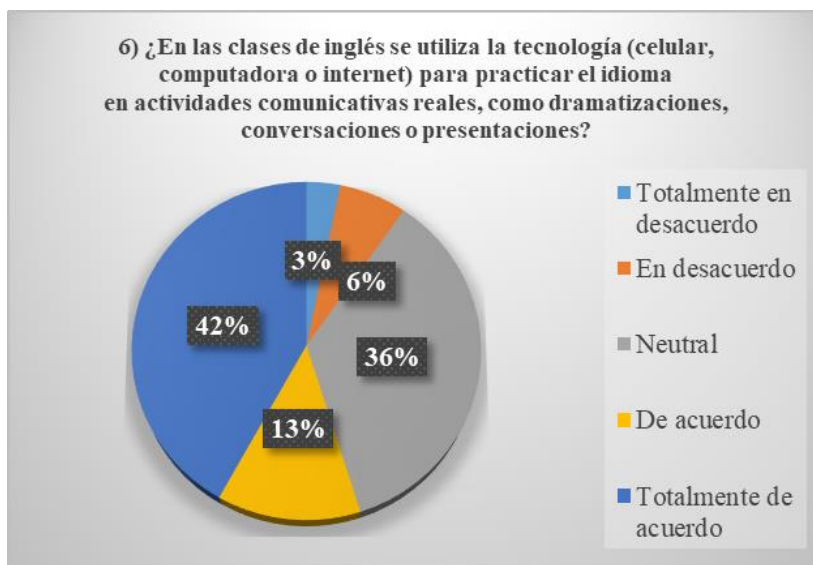
Question 5



The data shows that student responses are distributed across all categories, with the largest proportion falling within the neutral range, suggesting uncertainty regarding the consistent use of these resources. A combined portion of students expressed agreement, while the remaining responses were distributed between disagreement and strong disagreement, indicating that the use of audios and songs in English classes is not a consistently perceived practice among students.

Figura 9

Question 6



The data presents a notable contrast: while a significant proportion of students strongly agreed that technology is used for real communicative activities in English classes, a considerable portion remained neutral on the matter. This distribution suggests that students do not share a uniform perception regarding the use of technology for this purpose, reflecting an inconsistency in how this practice is experienced across the student population.

Figura 10

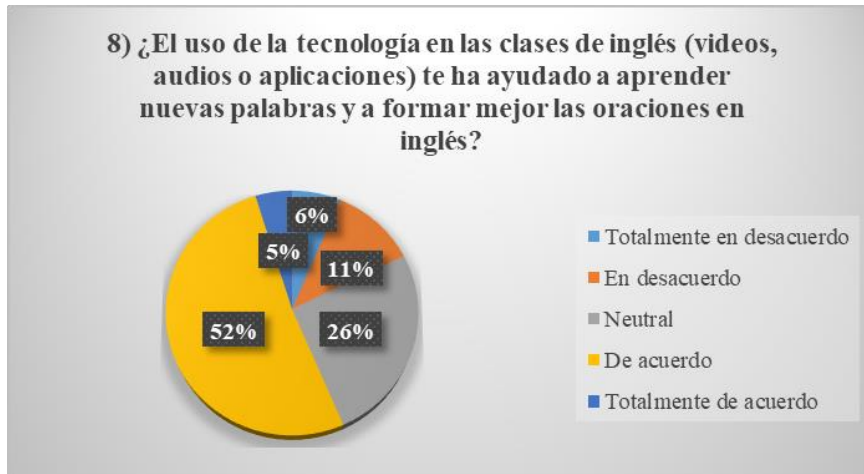
Question 7



The data reveals that responses are spread across all categories, with the largest proportion falling within the neutral range, followed by those who disagreed. A smaller but notable portion of students expressed agreement, while very few strongly disagreed or strongly agreed. This distribution suggests that students do not hold a clear or unified perception regarding the impact of audiovisual media on their spoken English development.

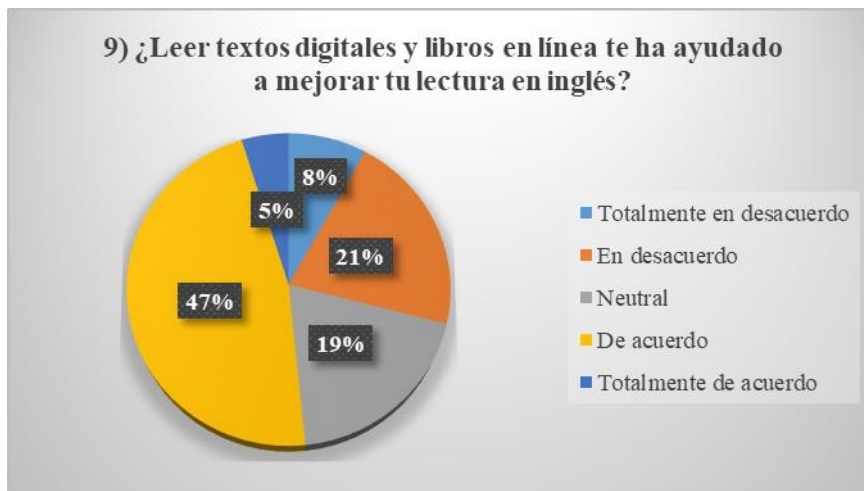
Figura 11

Question 8



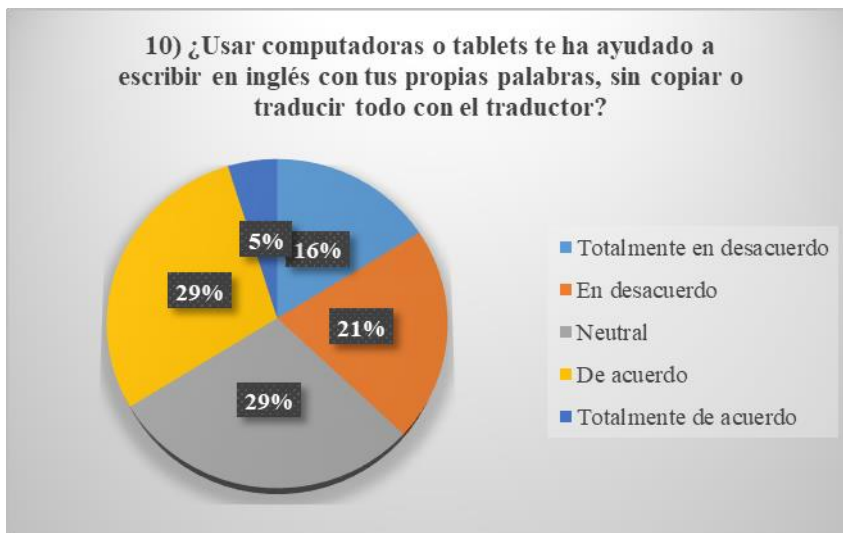
The data shows that the majority of students agreed that the use of technology in English classes has contributed to their vocabulary development and ability to form sentences. As smaller proportion remained neutral, while only a minority expressed disagreement or strong disagreement, suggesting that students generally hold a positive perception regarding the role of technology in supporting these aspects of language learning.

Question 9



The data shows that the largest proportion of participants agreed that reading digital texts and online books has contributed to improving their reading in English, making it the most prominent response. However, a notable portion of students disagreed, and a smaller proportion remained neutral or strongly agree, indicating that while the overall perception leans positive, a significant number of students do not share this view.

Question 10



The data reveals an evenly distributed pattern of responses, where agreement and neutrality share the same proportion, followed by a notable percentage of students who disagreed. This balanced distribution suggests that students do not hold a clear or unified perception regarding the role of computers and tablets in supporting their ability to write independently in English.

Question11



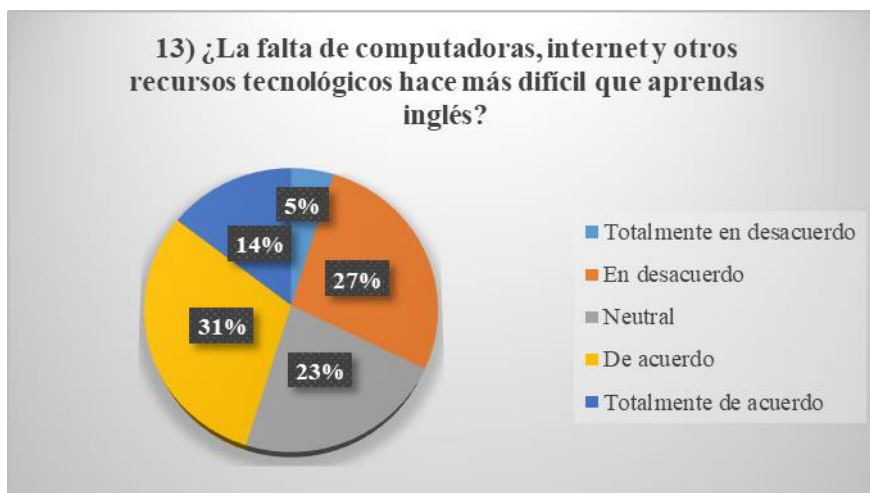
The data shows that the largest proportion of participants agreed that they retain information better when technology is used in class compared to traditional learning tools. A smaller but notable portion remained neutral, while a minority expressed disagreement. Overall, the responses lean toward a positive perception regarding the role of technology in supporting information retention during English learning.

Question 12



The data shows that the largest proportion of students agreed that they participate more actively when technology is used in class, while a notable portion disagreed. The remaining responses were distributed between neutral and strongly agreed, suggesting that while technology appears to have a positive influence on student participation for a considerable number of students, this perception is not shared uniformly across the group.

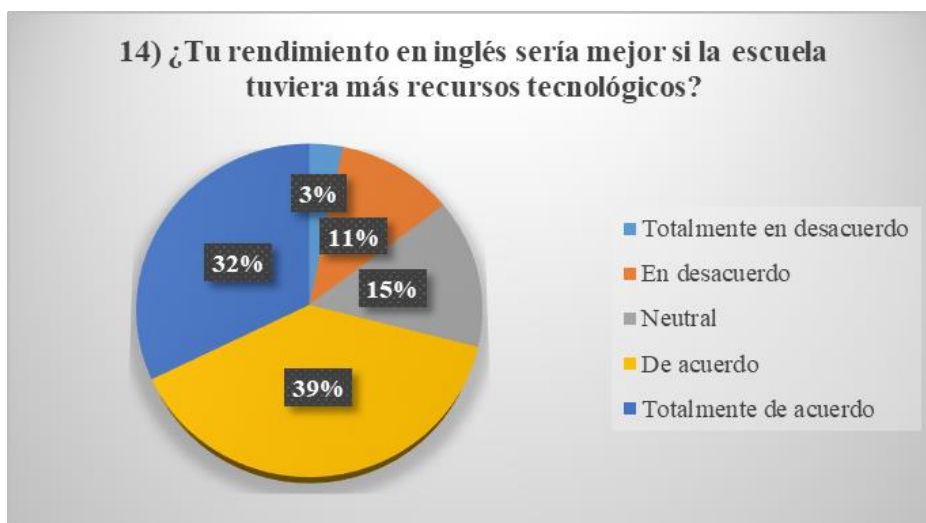
Question 13



The data shows that the combined proportion of students who agreed represents the largest share of responses, indicating that a considerable number of students perceive the lack of technological resources as a barrier to their English learning. However, a notable portion disagreed, and a smaller proportion remained neutral, reflecting that this perception is not unanimously shared across the student population.

Figura 17

Question 14



The data shows that the majority of students agreed or strongly agreed that their English performance would improve with greater access to technological resources, representing the most prominent combined response in this question. A smaller proportion remained neutral, while only a minority expressed disagreement, suggesting that students broadly perceive technological resources as a factor that could positively influence their academic performance in English.