The Impact of the Lack of Training in the Use of ICT in the English Teachers in Public Education

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Description	Monograph
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Contents	Esta monografía investiga el impacto de la capacitación inadecuada en tecnología de la información y la comunicación (TIC) entre los maestros de inglés del sector público y sus efectos en sus prácticas pedagógicas, la calidad educativa y la participación de los estudiantes. El estudio destaca el papel fundamental de las TIC en la educación moderna y explora los desafíos que enfrentan los profesores de inglés debido a su insuficiente competencia tecnológica.

	La revisión de la literatura detalla la evolución de las iniciativas de TIC en Colombia, comenzando con el programa "Computadores para Educar" (CPE), lanzado en 2000 para integrar las TIC en la educación a nivel nacional. A pesar de los logros notables, como el aumento de la conectividad a Internet y la distribución de dispositivos digitales, muchos maestros, especialmente en las zonas rurales, todavía carecen de habilidades esenciales de TIC. Esta deficiencia se ve agravada por la insuficiente formación y asignación de recursos, lo que da lugar a métodos de enseñanza anticuados y una participación limitada de los estudiantes. La brecha digital revelada durante la pandemia de COVID-19 exacerbó aún más estos desafíos, poniendo de relieve las disparidades en el acceso a la tecnología entre las zonas urbanas y rurales. El estudio concluye que la falta de formación en TIC conduce a un uso ineficaz de los recursos digitales en las aulas, lo que afecta negativamente al aprendizaje del inglés por parte de los alumnos. Las herramientas de TIC, cuando se utilizan correctamente, pueden mejorar significativamente las habilidades de los estudiantes al promover entornos de aprendizaje interactivos y personalizados. Una investigación de Breen y Candlin (2001) indica que la tecnología mejora la comunicación y la comprensión cultural, mientras que Acevedo et al., (2016) enfatiza su papel en el fomento de la autonomía del alumno. Altun (2015) destaca los numerosos recursos en

	línea disponibles para la enseñanza, y Qin y Shuo (2011) señalan que las TIC crean entornos de aprendizaje flexibles e innovadores. Además, la integración de las TIC aumenta la motivación y participación de los estudiantes al ofrecer recursos interactivos y atractivos. La tecnología proporciona retroalimentación inmediata a través de cuestionarios interactivos y aplicaciones de aprendizaje de idiomas, lo que permite a los estudiantes supervisar su progreso y mejorar de manera eficiente. Las experiencias de aprendizaje personalizadas, adaptadas a las necesidades individuales, aumentan aún más la eficacia de la adquisición del idioma. La monografía concluye que una formación integral en TIC es esencial para mejorar las prácticas docentes y los resultados de los estudiantes. Pide a las instituciones educativas que den prioridad tanto al suministro de recursos tecnológicos como al desarrollo profesional continuo de los profesores. Al abordar la brecha digital y dotar a los educadores de las competencias necesarias para utilizar eficazmente las TIC, las escuelas pueden mejorar las experiencias educativas y preparar mejor a los alumnos para el éxito en un mundo digital. Los resultados subrayan la necesidad de inversiones estratégicas en la formación de profesores y la asignación de recursos para colmar las lagunas existentes y aprovechar todo el potencial de las TIC en la educación.

Research Line	The methodological design used in the research was the Argumentative Method, based on several references, such as MINTIC, Research Articles, University Essays, and Research Magazines, analyzing the figures of the analyzed problem in Public Institutions. ECEDU's Research line: Pedagogical and Learning Argumentation – Functional.
Conclusions	The advancement of developing technologies and how they have transformed social dynamics and school environments make it necessary to indicate the teaching task so teachers can face the current changes and promote contextualized and meaningful pedagogical practices. The impact of ICTs in education today implies that teachers are familiar with using technological tools. Thus, they can offer appealing and motivational English lessons.
Advisor	Silvia Juliana León Calderón

Abstract

This monograph investigates the impact of inadequate Information and Communication Technology (ICT) training among English teachers and its effects on language acquisition, educational quality, and student engagement. The study highlights the critical role of ICT in modern Education and explores the challenges English teachers face due to insufficient technological proficiency.

The literature review details the evolution of ICT initiatives in Colombia, beginning with the "Computadores para Educar" (CPE) program, launched in 2000 to integrate ICT into Education nationwide. Despite notable achievements, such as increased internet connectivity and distribution of digital devices, many teachers, particularly in rural areas, still lack essential ICT skills. This deficiency is compounded by inadequate training and resource allocation, resulting in outdated teaching methods and limited student engagement. The digital divide revealed during the COVID-19 pandemic further exacerbated these challenges, highlighting disparities in technological access between urban and rural areas.

The study finds that the lack of ICT training leads to ineffective use of digital resources in the classroom, negatively impacting students' English language learning. ICT tools can significantly enhance students' skills by promoting interactive and personalized learning environments when properly utilized. Research by Breen and Candlin (2001) indicates that technology improves communication and cultural understanding, while Acevedo (2016) emphasizes its role in fostering learner autonomy. Altun (2015) highlights the extensive online resources available for teaching, and Qin and Shuo (2011) note that ICT creates flexible and innovative learning environments. Moreover, ICT integration enhances student motivation and participation by offering engaging and interactive resources. Technology provides immediate feedback through interactive quizzes and

language learning apps, allowing students to monitor their progress and improve efficiently. Personalized learning experiences tailored to individual needs further enhance the effectiveness of language acquisition.

The monograph concludes that comprehensive ICT training is essential for improving teaching practices and student outcomes. It calls for educational institutions to prioritize providing technological resources and ongoing teacher professional development. By addressing the digital divide and equipping educators with the necessary skills to use ICT effectively, schools can enhance educational experiences and better prepare students for success in a digital world. The findings underscore the need for strategic investments in teacher training and resource allocation to bridge existing gaps and leverage the full potential of ICT in Education.

Keywords**:** training, english teachers, ICT, digital resources, public schools

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I would like to express my sincere thanks to God first for creating a better version of me and holding me in every step of my life, to my family for always being for me in every moment; I am deeply grateful to my partner for her great contributions for this work, to the teacher Silvia for giving suitable suggestions and guiding us with patience, empathy, and effective communication in order to build this monograph. “Angie”

Table of Contents

Introduction

Technology is increasing in the environments of our social, work, and, of course, educational lives. It has become a reality in the classrooms. However, in many cases, it is underused due to obstacles caused by inflexible school organizations, a lack of culture and digital literacy, or even scarce or inadequate teacher training for implementing ICT in the classroom. This work focuses on this last aspect. At all educational levels, the introduction of ICT opens a new range of possibilities, especially if we consider that we live in a society where technology is everyday life, and new generations grow up with the internet, computers, video game consoles, digital televisions, etc.

Therefore, those digital natives whose lifestyle involves cyberspace where audiovisual and hypertextual matter prevails are those who come to the classroom expecting it to match their interests and learning styles, with an English teacher capable of creating a learning space that includes digital tools and scenarios to organize, structure, and assimilate knowledge but also some knowledge they find useful, enjoyable and meaningful.

Many English teachers, classified today as digital immigrants who were not raised with technology and therefore have learnt to use it and integrate as it was emerging, may have obstacles or burden to integrate ICT so that their teaching practices allow them to break the traditionalist methods and start creating learning environments more appealing and interactive using technology.

On the other hand, there is a range of teachers who do not have the technical knowledge to handle the most common technologies in the classrooms or do not have information or training about the advantages they can offer to improve their practices in educational scenarios. In any case, there is still a long way to go and much work to do to take advantage of those

advantages that digital media can offer us both in terms of motivation and innovation in the classroom, as well as in its more formative and communicative aspect.

When considering generational differences, one crucial factor influencing the integration of technology in education is the level of tech literacy among different generations. While younger generations, such as Millennials (born between 1981 and 1996) and Generation Z (born after 1997), have grown up surrounded by digital devices and online platforms, older generations, including Generation X (1965–1980) and Baby Boomers (1946–1964), have had to adapt to the rapid evolution of technology.

Digital natives, such as Generation Z and younger Millennials, are accustomed to intuitive, interactive, and fast-paced digital environments. They tend to develop tech literacy organically through daily exposure to digital tools, social media, and online learning platforms. On the other hand, digital immigrants especially older educators often require more structured training to acquire similar levels of digital fluency. Their approach to technology is typically more cautious, and they may struggle with adapting to new platforms or integrating ICT effectively into their teaching methodologies.

In this context, the Baby Boomers, born between 1946 and 1964, experienced the rise of the internet during their adulthood. While not digital natives, many have adapted to digital technologies, using them to stay connected, work, and entertain themselves. However, some may show reluctance to adopt new technologies, facing challenges in accepting modern digital language. This generational gap is evident in the classroom, where many Baby Boomer teachers, despite their years of experience and pedagogical expertise, may struggle to integrate digital tools effectively into their teaching practices.

Professors need specific training to enable them to deal with these new challenges, which, in turn, helps them adapt and adjust to the new model and demands of society. Consequently, there is an emerging need to train teacher on the integration of ICT in the classroom to generate skills in both the technical, pedagogical, and methodological aspects of these new tools since, without this combination, the possibilities of the technologies are significantly reduced (Rodríguez & Pozuelos, 2009).

Significance of Study

This monograph aims to determine the impact of teachers' lack of knowledge about technological tools on the acquisition of English as a foreign language and to investigate the causes hindering language acquisition. Ramírez (2010, p. 2) "states that information and communication technology (ICT) is a fundamental part of society and is used in every field, making its use in education necessary." Most people have been exposed to technological tools; hence, in the institutional framework, teachers should be at the forefront of the innovation of the current century.

The lack of ICT acknowledgment among English teachers may be due to several factors, such as the lack of resources and infrastructure in schools, insufficient knowledge of technological tools, deficiency in the organization or integration between the curriculum, the teacher, and the technology; Inexperience in the knowledge of the new paradigms; Distrust in the new tools, and only use traditional, methods, and strategies schemes, in the process of the teaching-learning; Lack of training in the institutions.

Understanding the significance of training in Information and Communication Technologies (ICT) for English teachers in public education is crucial, as it directly influences the quality of language instruction and student engagement. According to Tinio (2003), ICT has the potential to enhance teaching and learning by providing teachers with innovative tools and methodologies; however, the lack of adequate training prevents educators from fully utilizing these resources. This study is essential because it sheds light on the challenges faced by teachers due to insufficient ICT training, aiming to provide insights that could lead to more effective professional development programs and improved learning outcomes in public education.

Technological illiteracy, defined as the lack of skills to use and adapt to new technologies, is a problem that affects various sectors of Colombian society. According to the "Digital Skills Outlook 2021" report by the International Telecommunication Union (ITU)**,** only 40% of the population in Colombia possesses basic digital skills, such as handling computers and mobile phones and the ability to connect to the Internet for communication and searches.

This lack of digital competencies limits access to educational, employment, and personal development opportunities, increasing the social and economic gap. Furthermore, a study conducted in Barranquilla found that field workers demonstrate generalized ignorance in the use of technology, whereas those with regular exposure to digital devices show greater familiarity and proficiency.

Comparing the performance of private and public schools in the Program for International Student Assessment (PISA) reveals notable differences influenced by Information and Communication Technology (ICT) training and resources. According to PISA 2018, approximately 18% of students globally were enrolled in private schools, though this percentage varies significantly across different education systems.

In Spain, during the 2018-2019 academic year, there was an average of three students per computer: 2.8 in public schools and 3.2 in private schools. Additionally, 60% of classrooms had interactive digital systems, 89% of schools maintained an internet webpage, and 45% utilized virtual learning environments.

These statistics suggest that public schools in Spain had slightly better student-to-computer ratios, which could impact the integration of ICT in education. However, the overall effectiveness of ICT integration depends not only on resource availability but also on the quality of teacher training in utilizing these technologies. Addressing disparities in ICT training and

resources between private and public schools is crucial for ensuring equitable educational outcomes.

Statement of the Problem

According to the statistical analysis made by Javeriana University and Lee (Laboratorio de Economía de la Educación) 2020, In 48% of Colombia's public institutions, teachers do not have the technical and pedagogical skills necessary to integrate digital devices, one of the reasons is that into teaching and 23% of teachers in public schools are over 60 years old. 36% of educators in these schools continue working, even after retirement. One of the difficulties that an English teacher faces in public schools is related to the insufficient use of ICT and the little training; due to this and its scarce application in the classroom, students do not have the necessary resources to achieve successful English learning.

According to an article from INFOBAE (January 3, 2024) and research by the Educational Economics Laboratory of Javeriana University, 79% of rural educational institutions do not have an internet connection, and almost 60% lack classrooms computing; while, in urban settings 9.3% institutions do not have internet, and 14.7% lack computer in classrooms, which reflects a pronounced inequality. Besides this lack of knowledge and teacher training, and the lack of technological tools that help them carry out their work optimally and promote the development of the students' skills in listening, speaking, reading, and writing, many educational institutions do not have access to the internet or technological equipment in the classrooms that enable adequate use of ICT.

On the other hand, in other cases, if an educational institution has these resources, some English teachers do not have the necessary knowledge to handle mobile devices, multimedia equipment, and internet search engines. They often must request help from other teaching colleagues or directives. Some English teachers need better training in the use of technological equipment and in the programs used in teaching English, such as blogs, websites for educational

purposes, digital whiteboards, virtual platforms, and research networks. Some English teachers, especially the most contemporary ones, present great difficulties handling technology. This results in monotonous classes and students not developing their language skills effectively, leading to poor academic performance in the English subject.

In what ways does teacher training focused on the use of technology improve their educational practices? Teacher training focused on the use of technology significantly improves educational practices by enhancing lesson interactivity, increasing student engagement, and facilitating differentiated instruction. ICT training allows teachers to create dynamic and innovative learning environments using multimedia resources, digital platforms, and interactive tools. According to UNESCO (2022), teachers who receive specialized ICT training demonstrate greater confidence in using digital tools, leading to improved student performance and motivation. Additionally, well-trained educators can efficiently integrate technology to support language acquisition, providing students with real-world exposure to English through authentic digital materials and interactive activities.

Objectives

General Objective

Analyze the impact of the lack of English teachers' training in the use of technological resources in the schoolroom.

Specific Objectives

Identify the potential impacts of inadequate teacher training in Information and Communication Technology (ICT) on the learning process and its adverse effects on students.

Emphasize the importance and the benefits of comprehensive teacher preparation in ICT for enhancing the effectiveness of the teaching-learning process.

Examine the responsibility that public educational institutions hold in teacher training and in providing the necessary resources to carry out their labor.

Literature Review

Since 2000, with the arrival of ICT in Colombia, diverse technological devices have been applied as a new mechanism to boost the educational process in the different territories. Despite the advent of ICT at that time, it was implemented for some years in the classrooms as another learning subject, and in this way, students began to develop their abilities in handling technological tools. In 1999, the National Council for Economic and Social Policy (CONPES) approved 'Computadores para Educar' (CPE), marking a significant milestone in deploying ICTs within Colombia's educational framework. Officially launched in 2000, CPE was devised to catalyze the widespread integration of ICTs in educational settings nationwide.

The key stakeholders involved in implementing the CPE (Computadores para Educar) program encompassed prominent entities such as the National Learning Service (SENA), the Ministry of Information and Communication Technologies (ICT), the Ministry of Education, and the National Center for Electronic Waste Management (CENARE). Moreover, the genesis and execution of the CPE program drew considerable inspiration and guidance from analogous initiatives in Canada, notably exemplified by SchoolNet and Computers for Schools, which served as instructive models for Colombia's endeavor.

The CPE program's overarching objectives were central to its encapsulation of several strategic imperatives to augment the educational landscape. These included fostering broader accessibility to ICT resources within educational communities nationwide, enhancing educators' proficiency in leveraging ICTs for pedagogical purposes, mitigating the adverse environmental repercussions associated with ICT deployment, and institutionalizing CPE as a sustainable endeavor aligned with the country's broader sustainable development goals. Originally slated for ten years, the CPE program was extended for an additional decade. Throughout this extended

period, it underwent iterative refinement, accommodating evolving policies and technological advancement

Within the Colombian context, notable achievements attributable to the CPE program were enumerated by the Ministry of Information and Communication Technologies (MINTIC) in 2023. In the realm of connectivity, the advent of 5G technology heralded a paradigm shift, bolstering Colombia's digital competitiveness through the provision of services by four major operators. Additionally, strategic partnerships, such as the alliance with INTERNEXA, facilitated internet access for approximately 384,000 households in marginalized regions. Moreover, concerted efforts were directed towards ensuring internet connectivity for 1,180 rural schools within Peace Community Zones across 162 municipalities, spanning 19 nationwide departments. (Ministerio de tecnologías de la informacion y las Comunicaciones. TIC, 2024).

During 2010 and 2016, the use of ICT in Education began to gain strength in Colombia in public schools, and this is how they chose to implement the use of ICT in their pedagogical practices, turning them into allies of the learning process and indispensable resources for a better quality of Education. The Ministry of National Education has achieved the highest figures for the incorporation of ICTs in Education in the country's history, with more than 200 thousand teachers trained in the use of these tools, 76% of public-school enrollment with access to the internet, and 100% of education enrollment connected to the network. (Mineducación, 2016).

In the case of public institutions, the same managers oversee teacher training. Nevertheless, deficiencies occur in this sector since, in most of them, personal benefit to the collective takes precedence. The true interest of this sector of Education is profit, leaving aside the interests and needs of both teachers and students with the support of the Ministry of Information and Communications Technologies, the National Government has distributed more

than 600 thousand laptops and tablets in the country's official educational institutions, thus reaching a ratio of 5 children for each of these terminals, an indicator that in 2010 was 26 children for each team.

These terminals have been delivered equipped with educational software from Colombia Learn, the most ambitious strategy for offline and online digital educational consent for learning in mathematics, science, language, and English, among others. Currently, the portal has an average of three million unique visits per month and more than one million four hundred thousand registered users added the minister in charge. (Mineducación, 2016).

In the case of countries like Venezuela, teacher training in this area can be found in Decree 825 of the Bolivarian Republic of Venezuela, where priority is given to electronic formats and then to teacher education and training. (Mineducación, 2016).

The fundamental objective of education would be to enable students to construct their own learning based on their previous knowledge and experiences of information and knowledge that would be internalized by the person who learns. Therefore, the availability of information does not guarantee the acquisition of knowledge, the student must be always supported and guided by the teacher; in this way, he will be able to learn and thus be able to access the information, understand it, be a critical person, highlight the fundamental ideas, and have a vision of it. Finally, it can be added that teacher training is carried out in three moments: one of initiation, another of deepening, and a third moment of transformation.

In South Korea, The Ministry of Education and Human Resources Development oversees the adoption of ICT, a process that has occurred in three phases. (Mineducación, 2008). During the first, the infrastructure was improved to facilitate its adoption; In the second, they sought to integrate them into the teaching and learning methods; and in the third, which has been underway

since 2006, the aim is to make e-learning a reality (through EDUNET or National Center for Online Teaching/Learning), in such a way that everyone can study always and wherever they want to. In the case of Chile, teacher training is applied at two levels: multiplier, is a specialist in the training of teachers in the use of computing in the classroom, and classroom teachers, in charge of carrying out institutional projects linked to the introduction of technologies in the classroom. (Mineducación, 2008).

The application of ICT in the teaching of English contributes to improving students' skills in the public institutions, the internet facilitates the understanding of the language, and including ICT in the teaching of English optimizes the teaching-learning processes. It also enhances collaborative work as it promotes the participation of the students; they become more effectively involved in the new language and are more motivated since this type of resource considerably attracts their attention and increases their concentration during class time. “Thus, language learning can be considered a process that develops through the interaction between learners, teachers, texts, and activities”. (Breen & Candlin, 2001, p. 4).

The integration of ICT in the teaching of a foreign language is highly beneficial for learners in public institutions because it allows them to develop autonomy since, as they are motivational tools, they promote autonomous work and collaborative work. "A variety of technology-enhanced gadgets can create an interactive learning environment to develop learners' autonomy and meaningful learning, which provides a huge amount of exposure to language" (Acevedo et al., 2016, p. 104).

Another benefit of ICT in teaching English has to do with the infinite resources that teachers can find on the internet to support their lessons, such as videos, articles, online exercises, games, e-books, slides, dialogues, audio, and websites, among others. "Using

technology has positive effects on teaching and learning English; technology can be applied to teaching practices to enhance and facilitate foreign language learning; computers, internet, smart boards, cell phones, video games, music players, etc. are used in the target language learning process to raise students' motivation and language awareness" (Altun, 2015, p. 75).

ICT in public institutions is also a great ally when it comes to interaction between students and the teacher synchronously and asynchronously, allowing them to share ideas, opinions, information, and knowledge from wherever and at any time. "The implementation of ICT will lead to a variety of English content, contexts, and pedagogical methods in a teaching environment. ICT makes the English language environment interactive, flexible, and innovative". (Qin and Shuo, 2011).

ICT tools often provide immediate feedback to students, allowing them to monitor their progress and make corrections in real time. Whether through interactive quizzes, language learning apps, or online exercises, students receive instant feedback on their language proficiency, helping them improve more efficiently. ICT allows for personalized learning experiences tailored to individual student needs and learning styles. With adaptive software and online platforms, teachers can create customized learning paths for each student.

During the pandemic, in Colombia, The National Ministry of Education's response to the public health emergency was to suspend all national school attendance, they decided to give the period of vacation for the students from March 16 to April 19, however the Municipal Secretary of Education of Bogotá implemented another strategy "Aprende en Casa" (Learn at Home). The AEC strategy comprises five components, between which we find the Edusitio**,** a web portal designed to support home learning by providing curated educational resources.

It features over 600 materials, including class videos for various subjects and grades, webinars, social media interactions, and a unique reading initiative called “BlibioRed en Mi Casa”. Countries like Spain and like many more, online classes were also implemented, institutions such as ANELE, provided free access to its digital platforms, which there are many educational resources, TVE jointly with the Ministry of Education and Professional Formation, started the project “EDUCLAN”, at the same time TVE2 becomes in an educational channel. (Muñoz et al, 2020).

In Ecuador, on April 1, 2020, the Ministry of Education announced that the 2020–2021 academic year would start with a virtual modality. Later, on June 8, 2020, Minister Monserrat Creamer introduced the "Aprendamos Juntos en Casa Educational Plan," aimed at ensuring students' continuity in the education system during the pandemic.

However, the shift from in-person to virtual classes revealed a digital divide among teachers. This divide, as defined by Norris (2001), refers to the gap between those who are proficient with technological resources and those who are not.

Due to globalization's reliance on Internet communication and emerging technologies, there has been a push to implement these tools nationwide. However, significant progress is still needed. According to MinTIC Minister Contain and the National Administrative Department of Statistics (DANE) 2019, broadband internet penetration is only 20.5% in the lowest income strata, while it reaches 99.8% in the highest. This means that approximately 21.7 million people have internet access, while 23.8 million Colombians do not. The most affected are low-income families, particularly in rural areas and poorer neighborhoods.

Technological advancement continues to escalate, with teachers increasingly utilizing technology for teaching, guidance, and mentoring while students rely on it for research, learning,

and performance evaluation. The Fourth Industrial Revolution (4IR) characterizes this digital transformation, blurring boundaries between physical, electronic, and physiological realms through the convergence of technologies. These changes benefit the education and training sectors. However, there is concern that students may become overly reliant on technology, potentially hindering their independent learning and problem-solving skills.

To integrate ICT in the classroom in public schools it is an entire responsibility of the government, who must provide them with all the necessary resources, starting with good internet access in both urban and rural areas, also that the classrooms have sufficient equipment, such as a computer and a screen in good condition that teachers have mastery in its use, that they know the tools, and that the teacher is trained to use web 2.0 tools such as the wiki, Google Drive, discussion forums, platforms and in addition to that, use them as support in your teaching work. "The development of any educational system depends on its effective training and vocational improvements" (Mulhim, 2016, as cited in Hashemi, A., & Kew, S. 2005, p. 79).

Educational institutions have the responsibility of providing continuous training to their teachers in all instances as changes arise and they must face new challenges in the development of their profession, so that they can fulfill their functions satisfactorily and guarantee their students a quality education. Nevertheless, many teachers do not have sufficient training to use these resources optimally, and many of them choose to omit them from their pedagogical practices.

One of the causes of this deficiency lies in the fact that educational institutions assume that educational professionals should already have this knowledge and that if they need training, they should be the ones to seek help, investigate, and prepare on their own. On the other hand, the teachers who maintain that it should be the public educational institutions that provide them

with all the necessary resources to carry out their work, including, of course, the entire issue of training in the management of ICT. (Ghazi et al. 2013, as cited in Hashemi, A., & Kew, S. 2005). Identified practical training as the primary barrier to the effective use of ICT in Education, as 97% of their respondents addressed this barrier of practical training as a vital problem towards the use of ICT.

This disagreement among managers and teachers causes English teachers to arrive in the classrooms with little knowledge of how to use ICT, and this has a direct impact on student learning. According to Jones (2004; as cited in Hashemi, A., & Kew, S. 2005), advancing from training is not simple, as the usefulness of the training must be certified. Effective training for teachers can also mean an improvement in their level of English and their skills, better performance in classes, and mastery in the use of technological tools. “Implies that the more the teaching process is effective, the more positive and effective teaching skills will be". (Yehya, 2018, as cited in Hashemi, A., & Kew, S. 2005, p. 79).

Some researchers such as, Dawes and While Khan have agreed that another of the barriers that prevent the proper use of ICT in teaching English has to do with a lack of confidence and a particular fear on the part of teachers when using ICT in the classroom. Being something unknown and novel causes a degree of suspicion that makes it impossible and leads to non-implementation. Dawes (2001) indicates this, as the circumstantial factor that one can face, as a barrier. While Khan et al. (2012) relates that as a self-efficacy of one's capabilities and an individual who is willing to take part in a task regardless of thinking it is complex and challenging.

Another factor that adds to this problem is the lack of time that educators must implement ICT in English classes, considering that for optimal implementation, sufficient time is required

during the session in such a way that they can be integrated with the other activities that the teacher has already planned. Al-Munawwarah (2015) believed that time allocation for each part of any session in any class requires more time. Educators need to spend more time checking the technological tools first before entering the class to make sure whether they work correctly or not.

According to Buabeng-Andoh (2012), several barriers hinder the use of computer technology in public education, including teacher skills, confidence, training, and access to appropriate programs and technology. According to Stockdill and Morehouse, (1992 as cited in Lawrence, J. E. 2022), also identified factors such as user characteristics, content, technology, and organizational capacity influencing ICT adoption in teaching. Basak and Govender (2015) highlighted various obstacles to ICT adoption by teachers, including distrust, competence, resistance to change, lack of time, training, access, technical support, and difficulty integrating ICT into classrooms.

Misuse of the Internet in class can lead to distractions and dispersion of students who sometimes spend their time playing instead of working. This is because browsing the attractive spaces of the internet tends to deviate from the objectives of your search. A lot of time is then wasted in carrying out tasks, and one digresses. For this reason, in order not to waste time, the teacher must scrupulously plan the classes, such as tasks, times, groupings, and work processes, and thus avoid improvisation in the classroom. In addition, we must consider the fact that not all students know how to search with criteria on the internet, the excess of available information, its dispersion and atomized presentation, lack of method in the search...can cause a feeling of overflow that blocks intellectual work. To this we must add the fact that unreliable and poor-quality information circulates on the internet, because it is partial, superficial, wrong, obsolete or

decontextualized. For this reason, it is necessary to teach the student to select information judiciously and to filter reliable sources.

Some online resources that have been successful in learning English as a foreign language in the classroom are websites specialized in teaching English; the most innovative are www.britishcouncil.org learn English, www.testenglish.com, www.agendaweb.org, www.lyricstraining.com, www.elllo.org, among others, are exciting websites where the teacher can find diverse material and practice exercises where students can practice speaking, writing, reading and listening. Another online resource that has had a tremendous positive impact on learning English as a second language is YouTube. This famous American platform specialized in playing videos has become invaluable support material in English classes; and on this platform, the teacher finds countless videos for all topics, such as grammar, vocabulary, songs, dialogues, and stories, among others, where the student can see and listen to the native speaker and this, in addition to being fun, is very beneficial for him English learning.

One of the purposes of the National Government in ICT matters, especially with digital connectivity, is to overcome deprivations as the foundation of human dignity and primary conditions for well-being through focused national and regional connectivity strategies in order to promote relevant use, pedagogical and generalized of the new and diverse technologies to support teaching, construction of knowledge, learning, research, and innovation, strengthening development for life, promote the incorporation of ICT in the System Educational to contribute directly to the improvement of quality coverage of Education. Promote knowledge management using appropriate ICT. Promote the use and appropriation of technologies in inclusive education for the population with diverse abilities. Plan Nacional Decenal de Educación (2016).

For English teachers to implement the use of ICT in their classes and have a successful performance in carrying out their work in public institutions in Colombia, it is strictly necessary that the government guarantee continuous and practical training in the proper use of these resources and turn to transmit this knowledge to their students so that they also use it satisfactorily in the classroom, in this way, the learning of English will occur more effectively.

In certain educational institutions, high stimulation is evident in the interaction of students with technological tools in learning the English foreign language, achieving greater participation; these recreational tools favor the activation of moods, which help to assimilate linguistic contents in a fun and meaningful way for learners and at the same time develop teamwork, adaptability, leadership, creativity, and assertive communication skills through competition.

According to figures from the Ministry of National Education, since 2010, there has been significant progress in the average number of students per computer, reflected in 2010 and managing to reduce it to 7 students per computer in 2017, after from this date it increases again by eight students, maintaining this last figure until 2022. According to DANE figures, in 2020, the distribution of educational facilities with ICT assets in use for pedagogical purposes in the urban area was 45% tablets, 81.8% laptops, and 68.6% desktop computers.

Methodological Design

This monograph is addressed through qualitative research, which, according to Creswell (1994), is “an inquiry process of understanding a social or human problem based on building a complex, holistic picture, formed with words, reporting detailed views of informants, and conducted in a natural setting” (Creswell, 1994, p. 1). A descriptive approach was also adopted, aiming to characterize the current situation regarding ICT training among English teachers in Colombian public schools and to gain insights into this underexplored area.

To identify the potential impacts of inadequate teacher training in ICT on the learning process and its adverse effects on students, the study first explored the current scenario of technological development in Colombia. This stage included reviewing official statistics, government reports (such as those provided by MINTIC), and relevant scholarly literature that highlight the technological readiness of schools and teachers, as well as the challenges faced by students due to insufficient teacher training.

To emphasize the importance and benefits of comprehensive teacher preparation in ICT, the second stage of the research examined data and case studies that illustrate successful training programs and their outcomes. National and international sources were consulted to compare different educational contexts, showcasing how ICT training enhances teaching strategies and student engagement. This comparative analysis helps demonstrate the value of proper ICT integration into pedagogical practices.

To examine the responsibility that public educational institutions hold in teacher training and in providing the necessary resources, the final research stage focused on institutional policies, governmental initiatives, and the role of public administration in supporting ICT

development in education. This involved analyzing policy documents, academic discussions, and institutional frameworks that shape teacher training programs in Colombia.

The triangulation technique was employed to ensure a comprehensive and balanced understanding of the phenomenon. This involved cross-referencing data from multiple sources including academic articles, essays, government reports, and journals to validate findings and present a well-rounded analysis (Patton, 1999).

Conclusions

In conclusion, the impact of the lack of teacher preparation in ICT in the classroom on the teaching of English in public institutions in Colombia extends beyond technical competence to significantly influence student engagement and overall learning outcomes. As noted by various researchers, including Voogt et al. (2013), educators who are adept in ICT can create more interactive and personalized learning experiences, thereby increasing student motivation and achievement. Ongoing training and support are crucial in this regard, ensuring that teachers continuously enhance their ICT skills and adapt instructional strategies to meet evolving educational needs. By investing in professional development programs that prioritize ICT integration, educational institutions can effectively boost student engagement and equip learners with the competencies necessary for success in both academic pursuits and future careers.

Accordingly, it is possible to identify that the most affected are the students, since the lack of knowledge on the part of teachers in the use of new technologies has a negative impact on the quality of education that students receive, hinders collaborative work, students lose motivation to learn English, Without access to audio and video recordings with native speakers, their pronunciation and fluency in the language and the acquisition of new vocabulary are very limited.

Consequently, the importance and benefits of adequate teacher preparation in the use of ICT for teaching English is the emphasis of this work, taking into account the advancement of emerging technologies and the way they have transformed social dynamics and school environments make it necessary to resignify the teaching task so that he can face the current changes and promote contextualized and meaningful pedagogical practices (Ramírez, 2012). The notable impact that derives from the implementation and use of ICT in classrooms raises the

need to analyze the perception that teachers have of ICT and what uses they give them (Coll et al., 2008).

The boom that ICTs have in Education today implies, in turn, greater teacher training so that they can be at the forefront and can face the challenges that new technologies have caused in the teaching-learning processes, even more so when It is about learning a new language, the challenge is even more significant so that teachers can improve the activities they carry out in the classroom through the novel use of ICT. In addition to offering the technological resources necessary for the implementation of ICT in English classes. Moreover, with the use of ICT students develop skills mainly listening and speaking through videos, dialogues and endless online resources that make the English language teaching process easier and more efficient for students.

Therefore, promoting the expansion and knowledge of ICT and learning how to use it is necessary, but by itself, it would not imply the application of ICT to teaching practice. It is necessary to promote its use through the creation of spaces where what and how to do it is taught. Technical training in the use of ICT must be complemented with additional information regarding the possibilities for these tools to improve student learning, with the explanation of the use strategies in the various teaching contexts or with the dissemination of examples of good practices. Only in this way can we take advantage of the new communicative, interactive, creative, and collaborative possibilities offered by current technologies (Prendes et al., 2010).

Promoting innovative practices through targeted ICT training empowers teachers to cultivate creativity, collaboration, and critical thinking among students. According to Koehler and Mishra (2008), such training equips educators with the tools to leverage technology effectively in the classroom, fostering a dynamic learning environment where students can

actively engage with course material and develop essential skills needed for the digital era. By integrating innovative ICT practices into teaching methodologies, teachers not only enhance educational experiences but also prepare students to navigate and excel in an increasingly digital and interconnected world.

Finally, the responsibility that public institutions have in training their teachers is examined, since they, at the head of the state, are the ones who have the responsibility of training teachers in the use of ICT in the classroom. It is not enough to provide the equipment and internet access, but also educational institutions must provide the necessary training to teachers for optimal use, in this way they have sufficient supportive mechanisms to make the process effective of educational change based on new technological tools.

Recommendations

Some important strategies that must be implemented in public schools in Colombia to improve teacher training in the management of ICT are to implement the measures that other countries have chosen where teacher training has made significant advances, as is the case of South Korea, where thanks to the advances in technology and its adequate and successful implementation in the classroom are pioneers in this field of education. In 2021, some Colombian teachers had the opportunity to travel to this country to train on the use and appropriation of technologies. for teaching and thus strengthen their abilities and acquire significant experiences and be able to apply them in their teaching work. (Mineducación 2023).

Another successful case worth highlighting is that of the United States, where a plan has been developed. The United States has developed a national ICT education plan to train its teachers in the use of Information and Communications Technologies (TIC). This plan seeks to ensure that educators have access to tools and connectivity to create, manage and evaluate the learning experiences of their students.

Some of the actions that have been taken in the United States to improve teacher training in ICT are provide educators with equipment and 24/7 Internet connectivity; provide access to learning data and analysis tools; connect educators with professional content, resources and systems; establish interoperability standards so that equipment from different providers can communicate.

The previous examples can be taken as a basis so that educational institutions and English teachers in Colombia, making use of the resources they have, implement these strategies and thus can guarantee a better quality of education aimed at better teaching-learning processes. successful

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