



INTEGRATION OF DIGITAL TOOLS IN TEACHING ENGLISH AS A FOREIGN LANGUAGE

INTEGRACIÓN DE HERRAMIENTAS DIGITALES EN LA ENSEÑANZA DEL INGLÉS COMO LENGUA EXTRANJERA

Rodrigo Alexander Rincón Zambrano^{1*}

¹ Carrera Educación, Facultad de Ciencias Sociales, Humanísticas y de la Educación, Universidad Estatal del Sur de Manabí, Ecuador. ORCID: <https://orcid.org/0000-0002-2713-5111>. Correo: rodrigo.rincon@unesum.edu.ec

Jahiry del Rosario Molineros Ronquillo²

² Carrera Educación, Facultad de Ciencias Sociales, Humanísticas y de la Educación, Universidad Estatal del Sur de Manabí, Ecuador. ORCID: <https://orcid.org/0009-0009-7013-5801>. Correo: jahiry.molineros@unesum.edu.ec

Paúl Geovanny Amén Mora³

³ Carrera Educación, Facultad de Ciencias Sociales, Humanísticas y de la Educación, Universidad Estatal del Sur de Manabí, Ecuador. ORCID: <https://orcid.org/0009-0007-1962-4015>. Correo: paul.amen@unesum.edu.ec

Andrea Michelle Chávez Cabrera⁴

⁴ Área de Educación Inicial y Preparatoria. Unidad Educativa Particular Bilingüe Sagrados Corazones de Rumipamba. Quito. Ecuador. ORCID: <https://orcid.org/0009-0004-8388-3319>. Correo: chaveza@rumipamba.edu.ec

* Autor para correspondencia: rodrigo.rincon@unesum.edu.ec

Abstract

This study explores the perceptions of secondary school English teachers regarding the integration of digital tools into their teaching practices. Through a systematic qualitative literature review, the study analyzes studies published between 2018 and 2025 that address this phenomenon in real-world settings, particularly in Latin America. The findings reveal generally positive attitudes towards digital technologies, which are valued



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for their potential to make classes more dynamic, foster student autonomy, and diversify methodologies. However, significant barriers persist, including a lack of specific teacher training, technological infrastructure deficits, and limited institutional support. Moreover, the teacher's role is transforming from a traditional transmitter of knowledge to a facilitator and learning mediator. The study concludes that effective technology integration requires comprehensive educational policies that combine access, continuous training, and context-sensitive support. This study is part of the research project "Strengthening the didactic-pedagogical level of teachers in educational institutions in the canton of Jipijapa" and contributes to the linkage project "Guided tasks and psycho-pedagogical support to strengthen student learning in Public Basic Education in Jipijapa, Phase III – 2025".

Keywords: English teaching; digital tools; teacher perceptions; secondary education; ICT; teacher training

Resumen

El presente estudio explora las percepciones de los docentes de inglés de educación secundaria sobre la integración de herramientas digitales en sus prácticas pedagógicas. A través de una revisión bibliográfica sistemática de enfoque cualitativo, se analizan estudios publicados entre 2018 y 2025 que abordan este fenómeno en contextos reales, especialmente en América Latina. Los hallazgos evidencian actitudes predominantemente positivas hacia el uso de tecnologías digitales, las cuales son valoradas por su capacidad para dinamizar las clases, fomentar la autonomía estudiantil y diversificar metodologías. Sin embargo, también se identifican barreras significativas como la falta de formación docente, deficiencias de infraestructura tecnológica y escaso acompañamiento institucional. Además, se observa una transformación en el rol del docente, quien asume funciones de mediador y facilitador del aprendizaje. Este estudio concluye que, para lograr una integración tecnológica efectiva, se requiere una política educativa integral que combine acceso, formación y apoyo contextualizado. Este trabajo forma parte del proyecto de investigación "Fortalecimiento del nivel didáctico-pedagógico de los docentes en las instituciones educativas del cantón Jipijapa" y del proyecto de vinculación "Tareas dirigidas y apoyo psicopedagógico para fortalecer el aprendizaje de los alumnos en la Educación Básica Pública de Jipijapa, Fase III – 2025".

Palabras clave: enseñanza del inglés; herramientas digitales; percepciones docentes; educación secundaria; TIC; formación docente

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Introduction

Over the last decade, advances in digital technology have significantly transformed teaching and learning processes at all levels of education. In the field of teaching English as a foreign language (EFL), these tools



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have become key allies in creating more interactive and student-centered learning environments by facilitating access to authentic content, promoting autonomy, and encouraging communication (Torres Duque & Argudo Garzón, 2024; Burudi et al., 2024).

The COVID-19 pandemic accelerated this process, prompting many educational institutions to adopt digital platforms as the primary means of ensuring pedagogical continuity (Sim & Ismail, 2023). However, the integration of technology in the classroom has not been uniform. According to UNESCO's global report (2023), by 2022, only 50% of secondary schools had an internet connection for educational purposes, highlighting a deep divide between countries and regions.

Teachers' perceptions of technology use also vary. In general terms, studies show favorable attitudes toward the incorporation of digital tools in English language teaching, valuing their potential to diversify methodologies, promote student participation, and improve performance (Makhlouf & Bensafi, 2021; Sim & Ismail, 2023). However, common barriers have been identified, such as a lack of specific training, infrastructure problems, limited institutional support, and work overload (Nguyen, 2021; Cabero-Almenara, 2020).

From a sociocultural perspective, Vygotsky (1978) already pointed out that learning is enhanced by mediating tools, which allows us to understand digital technologies as instruments that amplify cognitive abilities and transform pedagogical relationships. In this sense, the teacher ceases to be a transmitter of content and assumes the role of facilitator and mediator of learning.

Although there is a growing body of literature on educational technology, there are few studies that address, from a qualitative perspective, teachers' perceptions and experiences regarding the incorporation of digital tools in English language teaching in real contexts, particularly in Latin America. This gap justifies the present research, whose objective is to analyze how teachers understand, approach, and apply technology in their pedagogical practices.

This study concludes that, in order to achieve effective technological integration, a comprehensive educational policy is required that combines access, training, and contextualized support. This work is part of the research project "Strengthening the didactic-pedagogical level of teachers in educational institutions in the canton of Jipijapa" and the outreach project "Guided tasks and psycho-pedagogical support to strengthen student learning in Public Basic Education in Jipijapa, Phase III – 2025."

The objective of this work is to analyze the perceptions of secondary school English teachers regarding the use of digital tools in their teaching practices, identifying the main technologies used, the benefits and challenges they perceive, as well as the transformations that these have generated in their professional role within the current educational context.

Materials and methods

This research is based on a qualitative approach, with a systematic literature review (SLR) design of an interpretative nature, following the three-phase model proposed by Torres-Carrion et al. (2018): planning, execution, and presentation of results. The purpose was to collect, analyze, and interpret recent academic studies that address teachers' perceptions of the use of digital tools in teaching English as a foreign language, with an emphasis on the context of secondary education.



Planning

Definition of the problem and objectives

The central question was defined as: What evidence does recent literature report on secondary school teachers' perceptions of the use of digital tools in teaching English as a foreign language?

The overall objective was to identify patterns, theoretical approaches, and research gaps that would allow for an understanding of the pedagogical implications of the use of digital technologies in this field.

Search strategy and keywords

A systematic search strategy was designed using combinations of keywords in English and Spanish, including:

- perceptions, English language teaching, digital tools, secondary education, ICT in EFL.
- ICT in English language teaching, teacher perceptions.

Boolean operators (AND, OR) and time range filters (2018–2025) were applied.

Implementation

Sources of information

Recognized academic databases such as Scopus, ERIC, Redalyc, DOAJ, and Google Scholar were consulted, prioritizing publications in peer-reviewed and open-access scientific journals with a DOI available to ensure traceability.

Inclusion criteria

- Articles published between 2018 and 2025.
- Written in English or Spanish.
- Focused on secondary or middle school education.
- Related to teaching English as a foreign language.
- Reporting teachers' perceptions of the use of digital tools.

Exclusion criteria

- Opinion pieces or essays without empirical support.
- Studies focused on higher education.
- Publications without access to the full text.
- Research that does not explicitly address the role of teachers.

Selection and screening of articles

The procedure was carried out in two stages:

1. Preliminary review of abstracts, introductions, and conclusions to verify thematic relevance.
2. Complete reading of the preselected articles to confirm their final inclusion.

Data extraction and organization



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Analytical matrices created in Word and Excel were used to record author, year, country, methodological approach, objectives, main findings, limitations, and recommendations.

Codification and categorization

Qualitative analysis identified common themes:

- Perceived benefits.
- Barriers to implementation.
- Transformation of the teaching role.
- Institutional conditions and contexts.

Presentation of results

Interpretative synthesis

A narrative synthesis of the findings was conducted, grouping them into thematic categories and contrasting empirical evidence with conceptual frameworks on language teaching and the use of ICT.

Results and discussion

The integration of digital tools in education has been widely addressed from different theoretical approaches. In particular, the TPACK (Technological Pedagogical Content Knowledge) model, proposed by Mishra and Koehler (2006) and cited by Paidicán Soto & Arredondo Herrera (2023), establishes that effective pedagogical practice with technology requires a balanced combination of disciplinary, pedagogical, and technological knowledge. This framework has been essential for understanding how teachers can meaningfully integrate ICT into their classrooms, especially in the teaching of foreign languages such as English (Mishra & Koehler, 2006, cited by Paidicán & Arredondo, 2023).

From a sociocultural perspective, Vygotsky (1978) proposed that tools, including digital ones, act as mediators in the process of knowledge construction. According to this view, technologies not only facilitate access to information but also transform forms of interaction, expanding students' zones of proximal development. This view is key to interpreting the active role of teachers as facilitators of technology-mediated learning in current school contexts.

In the field of teacher training, Cabero-Almenara (2020) argues that teachers' beliefs and attitudes are as decisive as access to infrastructure for technological integration. Teachers who believe in the pedagogical value of ICT are more willing to experiment with new methodologies and adapt their practices, even in contexts with limited resources. This is in line with studies such as that of Nguyen (2021), who found that teachers value the potential of digital tools, even though they face technical barriers and institutional limitations to their full implementation.

Regarding English language teaching, Burudi et al. (2024) point out that technology offers unique opportunities to improve communicative competence, exposure to authentic materials, intercultural interaction, and student autonomy. Digital tools provide access to learning platforms, social networks, podcasts, video calls with native speakers, and mobile applications, thus facilitating language immersion from the classroom or at home. In this regard, recent studies highlight Educaplay as an effective platform for





enhancing EFL instruction, increasing student motivation, supporting personalized learning, and promoting the development of core language skills. Its successful implementation, however, requires proper teacher training and thoughtful integration into pedagogical practice, particularly in contexts such as Ecuador, where English proficiency levels remain comparatively low. (Rincón et al., 2025)

At the regional level, Torres Duque & Argudo Garzón (2024) emphasize that in Latin America, the process of technological integration is still in a transitional stage. Although successful experiences and teachers are willing to innovate, gaps in infrastructure, connectivity, and training remain significant obstacles. The scarcity of qualitative studies on teachers' perceptions in Latin American contexts reinforces the need for research such as this one, which focuses on giving voice to educational actors and understanding their experiences in depth.

Similarly, Sim & Ismail (2023) emphasize that English teachers value ICTs for their ability to diversify methodologies and capture students' attention. However, they caution that effective pedagogical use depends on multiple factors, such as activity design, institutional support, time available for planning, and familiarity with the tools available could be said that the specialized literature supports the use of digital technologies as a valuable resource for enhancing the teaching of English as a foreign language. However, it also highlights the need to understand how teachers appropriate these tools in real contexts, what their perceptions of them are, and what conditions favor or hinder their implementation. This background justifies the relevance of the present research from a qualitative and contextualized perspective.

Based on the analysis of the selected articles, four main thematic categories were identified that describe teachers' perceptions of the use of digital tools in teaching English as a foreign language.

Table 1. Thematic categories on teachers' perceptions of the use of digital tools in teaching English as a foreign language.

Category	Description	Authors/Sources
Positive attitudes toward technology	Teachers are receptive to the integration of digital tools. They recognize that these tools increase student interest, diversify teaching strategies, and encourage participation. The experience during the pandemic accelerated the adoption of technology and drove educational innovation.	Makhlouf & Bensafi, 2021; Sim & Ismail, 2023; Torres Duque & Argudo Garzón, 2024
Perception of educational benefits	Benefits such as access to authentic content, active methodologies, improved student autonomy, and personalized learning are valued. Interactive platforms, videos, and apps enrich classes and facilitate inclusion.	Burudi et al., 2024; Nguyen, 2021; Rincón et al., 2025
Barriers to implementation	Limitations such as lack of training in the pedagogical use of ICT, connectivity issues, lack of devices, work overload, and little time for planning. These barriers are more pronounced in Latin American contexts with limited resources.	Sim & Ismail, 2023; Nguyen, 2021; Cabero-Almenara, 2020; Torres Duque & Argudo Garzón, 2024
Transformation of the teaching role	The role of the teacher shifts from conveying content to designing experiences and mediating learning. Technology is used to develop language skills. Structural and cultural	Vygotsky, 1978; Sim & Ismail, 2023; Duk Homad et al., 2022; Banoy & Montoya,



challenges persist in the region. Continuous digital training and clear instructional design are necessary. 2022 ; Vásquez Peñafiel et al., 2023; Kessler, 2018; González & Ziegler, 2021

Note: The table summarizes the main findings of studies published between 2018 and 2025 on teachers' perceptions of the use of digital technologies in teaching English as a foreign language in secondary education.

Discussion

The results of this literature review show a general trend toward favorable perceptions among English teachers regarding the use of digital tools, which coincides with the findings of various international studies (Sim & Ismail, 2023; Nguyen, 2021). This positive attitude is especially relevant considering that teacher attitude is one of the strongest predictors of sustained pedagogical innovation (Cabero-Almenara, 2020).

Within the framework of the TPACK model (Mishra & Koehler, 2006, cited by Paidicán Soto & Arredondo Herrera, 2023), it can be interpreted that teachers are recognizing the pedagogical potential of technologies, although they do not always manage to integrate them in a balanced way into their practices. This gap between intention and action is often mediated by contextual factors, as indicated by findings on institutional limitations, ranging from connectivity to lack of professional support (UNESCO, 2023; Torres Duque & Argudo Garzón, 2024).

At this point, the discussion takes on special relevance when observing how the geographical and political context directly affects the effective implementation of educational technology. In Latin America, for example, inequality in access to technological resources continues to be a significant barrier, and the pandemic has only deepened pre-existing gaps (UNESCO, 2023). Despite this, the study by Torres Duque & Argudo Garzón (2024) shows that there are valuable, albeit scattered, local experiences that could serve as reference models if properly systematized.

The analysis also highlights a key point: the perception of change in the role of teachers. The transition from a teaching model focused on transmission to one mediated by technologies represents a profound transformation in pedagogical practice. From Vygotsky's sociocultural perspective (1978), this transformation is explained in terms of symbolic mediation: the teacher ceases to be the exclusive bearer of knowledge and becomes a facilitator of more complex, interactive, and adaptive learning experiences.

In this regard, Burudi et al. (2024) and Sim & Ismail (2023) highlight that technology allows for the design of multichannel learning environments that promote the development of communicative, metacognitive, and social skills. However, both authors agree that this potential can only be achieved if teachers have specific training, institutional support, and time for pedagogical planning.

Finally, it is worth mentioning the scarcity of research addressing teacher perceptions from qualitative approaches in the Latin American context. This constitutes a limitation for the generalization of results and, at the same time, an opportunity for more contextualized future research that considers local experiences in depth. The findings also echo the views of Gupta & Damodar (2025), who argue that teacher training programs should include inclusive approaches to the use of technology, addressing student diversity and promoting accessible practices. Along the same lines, Yang and Huang (2020) demonstrate that the





integration of mobile technology in EFL classrooms can be effective when teachers have autonomy and confidence in their practice.

Finally, Said Al Siyabi & Abdullah Al Shekaili (2021) provide evidence from an Arab context, showing that teachers' positive perception of technology does not always translate into effective application, which reaffirms the need to strengthen the pedagogical component, beyond access to devices.

Conclusions

This literature review has allowed us to explore and synthesize the perceptions of secondary school English teachers regarding the use of digital tools in their teaching practices. The studies analyzed agree in highlighting predominantly positive attitudes toward technology, valuing it as a teaching resource that promotes student motivation, autonomy, and participation.

However, multiple barriers that hinder the effective integration of these tools are also identified, especially in Latin American contexts. Among these, the lack of specific teacher training, technological infrastructure limitations, and the scarcity of institutional support stand out. These conditions limit the transformative potential of educational technology, even in cases where teachers are willing and creative.

Another relevant finding was the transformation of the teaching role, which is shifting from a traditional approach to a more mediating, facilitating, and reflective one, where technology is seen as a resource that enhances learning rather than as an end.

In terms of implications, this study reinforces the need to design educational policies that are not limited to the provision of devices, but also include pedagogical support processes, continuous training, and contextualized professional development.

Among the limitations of this research is the exclusively documentary nature of the analysis, which prevents direct triangulation with empirical evidence. Therefore, it is recommended that qualitative field studies be conducted to broaden and deepen the perspectives addressed here.

References

- Banoy-Suarez, W., & Montoya-Marín, E. A. (2022). Desarrollo de Competencias Digitales en Docentes de Educación Básica y Media. *Revista Tecnológica-Educativa Docentes 2.0*, 15(1), 67–74. <https://doi.org/10.37843/rted.v15i1.306>
- Burudi, S. W., Mugun, D. J., Karani, G. G. O., Cheptabok, M. C., & Lihanda, M. A. (2024). Integration of smartphones as an Instructional Resource in Enhancing Teaching of English Grammar. *Revista Latinoamericana de Educación Inclusiva*, 11(12), 1–15. <https://doi.org/10.4236/oalib.1112554>
- Cabero-Almenara, J. (2020). Tecnología y enseñanza: retos y nuevas tecnologías y metodologías. *CITAS*, 6(1). <https://doi.org/10.15332/24224529.6356>
- Cynthia Duk Homad, M., Javier Murillo, F., Sánchez Fuentes, S., Sylvia Contreras Salinas Dra Cynthia Martínez-Garrido, D., Ana Belén Domínguez Gutiérrez, D., Guajardo Ramos, E., López Cruz, M., Javier Murillo Torrecilla, F., Poblete Melis, R., Paula Riquelme Bravo, D., Jaime Veas Sánchez, M., Ainscow, M., Rosa Blanco Guijarro, L., Hegarty, S., Molina Bajamonde, V., Narodowski, M., &





- Pinto Guevara, A. (2022). *Digital inclusion and challenges in Latin American schools: A review of experiences*. https://revistainclusiva.ucentral.cl/revistainclusiva/issue/view/2025_19_1
- González-Lloret, M., & Ziegler, N. (2021). Technology-Mediated Task-Based Language Teaching. In *The Cambridge Handbook of Task-Based Language Teaching* (pp. 326–345). Cambridge University Press. <https://doi.org/10.1017/9781108868327.019>
- Gupta, Y., & Damodar, S. N. (2025). *Teacher education: Effective use of ICT integration in an Inclusive Setup*. www.rehabilitationjournals.com
- Kessler, G. (2018). Technology and the future of language teaching. *Foreign Language Annals*, 51(1), 205–218. <https://doi.org/10.1111/flan.12318>
- Makhlouf, K., & Bensafi, Z. (2021). An Exploration of Factors Influencing Teachers' Attitudes toward the Use of Information and Communication Technology (ICT) in Classroom Practice A Case Study of Secondary School EFL Teachers in the Western District of Chlef , Algeria. *Advances in Language and Literary Studies*, 12(2), 37. <https://doi.org/10.7575/aiac.all.s.v.12n.2.p.37>
- Nguyen, L. T. H. (2021). Teachers' Perception of ICT Integration in English Language Teaching at Vietnamese Tertiary Level. *European Journal of Contemporary Education*, 10(3), 697–710. <https://doi.org/10.13187/ejced.2021.3.697>
- Paidicán Soto, M., & Arredondo Herrera, P. A. (2023). Conocimiento técnico pedagógico del contenido (TPACK) en Iberoamérica: Una revisión bibliográfica. *Revista Andina de Educación*, 6(2), 000629. <https://doi.org/10.32719/26312816.2022.6.2.9>
- Rincón, R., Amén, P., Santos, L., & Solórzano, W. (2025). USE OF EDUCAPLAY IN THE TEACHING OF ENGLISH AS A FOREIGN LANGUAGE. *Revista Científica de Innovación Educativa y Sociedad Actual "ALCON."* <https://soeici.org/index.php/alcon/article/view/487/797>
- Said Al Siyabi, M., & Abdullah Al Shekaili, D. (2021). Teachers' Perceptions of Customizing Students' Learning through Differentiated Instruction at a Tertiary level. *Arab World English Journal*, 12(1), 374–387. <https://doi.org/10.24093/awej/vol12no1.25>
- Sim, J. S. E., & Ismail, H. H. (2023). Using Digital Tools in Teaching and Learning English: Delving into English Language Teachers' Perspectives. *Creative Education*, 14(10), 2021–2036. <https://doi.org/10.4236/ce.2023.1410129>
- Torres Duque, J. A., & Argudo Garzón, A. L. (2024). Exploring the Transformative Impact of ICT Integration in the EFL Classroom. *Religación*, 9(40), e2401172. <https://doi.org/10.46652/rgn.v9i40.1172>
- Torres-Carrion, P. V., Gonzalez-Gonzalez, C. S., Aciar, S., & Rodriguez-Morales, G. (2018). Methodology for systematic literature review applied to engineering and education. *IEEE Global Engineering Education Conference, EDUCON*, 2018-April, 1364–1373. <https://doi.org/10.1109/EDUCON.2018.8363388>
- UNESCO. (2023). *Technology in education: A tool on whose terms? Global Education Monitoring Report*.





- Vásquez Peñafiel, M. S., Paul Nuñez, D., & Cuestas Caza, J. (2023). Teachers' Digital Competences in the context of COVID-19. A quantitative approach. *Pixel-Bit, Revista de Medios y Educacion*, 67, 155–185. <https://doi.org/10.12795/pixelbit.98129>
- Vygotsky. (1978). El desarrollo de los procesos psicológicos superiores. *Editorial Crítica*. <https://saberespsi.wordpress.com/wp-content/uploads/2016/09/vygostki-el-desarrollo-de-los-procesos-psicolc3b3gicos-superiores.pdf>

