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## TESIS DE GRADO

Perceptions, expectations and factors that promote or limit the integration of Information and Communication Technologies (ICT) in English language learning in a secondary school during the second semester of 2025

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**Perceptions, expectations and factors that promote or limit the integration of Information  
and Communication Technologies (ICT) in English language learning in a secondary  
school during the second semester of 2025**

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## **Dedication**

I dedicate this work, first, to God, whose grace, wisdom, and strength have sustained me. To my family for their love and unconditional support throughout this process. Ever Araica

This work is dedicated primarily to God because he is the one who has given me the strength, wisdom and intelligence to be able to carry out this research. To my parents who are my greatest example to follow, who with their effort and sacrifice are always there to support me and guide me on the right path. Alex Obando

I dedicate this work to my mother for her unconditional love, constant support, and example of perseverance that has inspired me to achieve my goals. I also dedicate it to my teachers for guiding and teaching me and to all the people who in some way contributed to the realization of this academic project. Nestor García

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I thank God first for blessing me in every way and allowing me to get where I have. I also thank my parents enormously for supporting me unconditionally throughout this process, for their perseverance and trust. We are very grateful to all those teachers who gave us the bread of teaching and who were part of our professional training. Thank you to all those people who in one way or another were present throughout this time of the race. Alex Obando

First, I thank God, who has been my greatest support and source of strength throughout this process. I also want to express my deep gratitude to my mother, for her example and constant support. I also extend my recognition to my teachers, who have provided me with accompaniment at every stage of this academic path. Nestor García



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### CARTA AVAL DEL TUTOR

Estelí, 03 de diciembre de 2025

Por medio de la presente, en calidad de tutora del trabajo de modalidad de graduación titulado:  
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Estudiantes de la carrera de **Ciencias de la educación con mención en inglés**, hago constar que he brindado acompañamiento académico y metodológico durante el desarrollo de dicho trabajo, cumpliendo con lo establecido en el cronograma y en la normativa institucional vigente. Asimismo, avalo que el trabajo cumple con los requisitos formales, científicos y éticos exigidos por la Universidad, en cumplimiento de la modalidad de graduación correspondiente.

Atentamente,

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## **Abstract**

The integration of Information and Communication Technologies (ICT) today has become a very useful tool to improve educational processes, especially in the teaching-learning of the English language. The present study arises from the growing demand to incorporate these digital resources and the need to understand how they are assumed by the authors involved. The general objective is to examine the perceptions, expectations and factors that promote or limit the integration of ICT in English learning. The research is framed in a qualitative approach, with a descriptive scope and a non-experimental design. For the collection of information, techniques typical of this approach were used to understand the depth of the participants' experiences without manipulating the conditions of the educational context. In the results, positive perceptions and expectations towards the integration of ICT were evidenced, likewise, the factors that promote their use are the devices available in the educational center such as: computer, projector, Wi-Fi and students' mobile devices, it was observed that the teacher did not use them in the classes, in this way it is a factor that limits their use due to the limited knowledge of the teacher about technologies and their lack of interest in integrating them into English classes. It is concluded that both the teacher and the students have a positive attitude towards ICTs, their use is limited, which is due to the little mastery that the teacher has over these tools and the lack of interest in incorporating them in their classes.

**Keywords:** Information and Communication technology (ICT), English teaching, digital resources, teacher perception, student perception, factors.

## Resumen

La integración de las Tecnologías de la Información y la Comunicación (TIC) en la actualidad, se ha convertido en una herramienta muy útil para mejorar los procesos educativos, especialmente en la enseñanza-aprendizaje del idioma inglés. El presente estudio surge ante la creciente demanda de incorporar dichos recursos digitales y la necesidad de comprender cómo estos son asumidos por los autores involucrados. El objetivo general, es examinar las percepciones, expectativas y factores que promueven o limitan la integración de las TIC en el aprendizaje del inglés. La investigación se enmarca en un enfoque cualitativo, con un alcance descriptivo y un diseño no experimental. Para la recolección de información, se emplearon técnicas propias de este enfoque que permitieron comprender la profundidad de las experiencias de los participantes sin manipular las condiciones del contexto educativo. En los resultados se evidenciaron percepciones y expectativas positivas hacia la integración de las (TIC), así mismo, los factores que promueven su uso son los dispositivos disponibles en el centro educativo tales como: computadora, proyector, wifi y los dispositivos móviles de los estudiantes, Se pudo constatar su poco uso, lo cual es un factor que limita su aprovechamiento, además del conocimiento del profesor sobre las tecnologías y su falta de interés para integrarlas en la clases de inglés. Se concluye, que tanto el profesor y los estudiantes tienen una actitud positiva hacia las TIC y que existen factores que promueven y limitan la integración de éstas, desde la perspectiva de los contextos descritos.

**Palabras claves:** Tecnologías de la Información y la Comunicación (TIC), enseñanza del inglés, recursos digitales, percepción docente, percepción del estudiante, factores.

## Table of Contents

1	Introduction .....	1
2	Background .....	3
3	Problem statement .....	9
4	Justification .....	11
5	Objectives .....	13
6	Limitations of the study .....	14
7	Basic Assumptions .....	15
8	Emerging Categories, Themes, and Patterns of the Research .....	16
9	Research questions .....	19
10	Theoretical Framework .....	20
10.1	Information and Communication Technologies (ICT) .....	20
10.1.1	Definition .....	20
10.1.2	Importance .....	20
10.2	ICT in education .....	21
10.3	Roles of ICT in education .....	21
10.3.1	Communicative function .....	22
10.3.2	Motivating function .....	22
10.3.3	Navigation .....	22
10.4	The role of ICT in learning English .....	23
10.4.1	Learning theories .....	23
11	Methodological design .....	25
11.1	Qualitative Approach Assumed .....	25
11.2	Type of Research .....	25

11.3	Theoretical Sample and Study Subject.....	26
11.4	Methodology .....	26
11.5	Quality Criteria Applied.....	26
11.5.1	UNAN-Managua Quality Policy and Strategy .....	26
11.6	Methods, techniques, and instruments for data processing and analysis .....	28
12	Analysis and discussion of results.....	30
12.1	Perceptions of ICT integration .....	30
12.2	Expectations of ICT integration (ET).....	31
12.3	English class observation guide .....	31
12.4	Factors that promote ICT integration .....	32
12.5	Factors limiting ICT integration.....	32
12.6	Student Questionnaire .....	33
13	Conclusion.....	43
14	Recommendation.....	45
15	References .....	46
16	Annexes .....	52

## **Index of tables**

<b>Table1</b> Category System.....	16
<b>Table2</b> Main perceptions of students regarding ICT (Questionnaire).....	34

## **Index of figures**

<b>Figure 1</b> .....	40
<b>Figure 2</b> .....	41
<b>Figure 3</b> .....	41

## 1 Introduction

Nowadays, the integration of Information and Communication Technologies (ICT) has transformed the teaching of English. These tools provide resources that facilitate more interactive learning and support the development of key skills focused on English language acquisition. In addition, ICT not only improves access to information but also enables the implementation of participatory and dynamic learning strategies. As a result, students can strengthen both their digital and cognitive abilities.

However, despite these advantages, some schools, such as a specific secondary observed, still show limited information on how ICT is affectability into English learning. These reveals a gap between the availability of technological resources and their actual use to promote meaning learning.

Therefore, it becomes necessary to investigate students' and teachers' expectations and perceptions, as well as the factors that promote or hinder the integration of ICT in the English teaching process. According to Martín-Laborda (2005), ICT in education contributes to improving teaching quality and responding to society's new demands, enabling young people to develop more effectively in diverse social and professional contexts.

In this sense, digital tools allow students access resources that enhance their skills, promote autonomy, and encourage active participation in the learning process. Trujillo (2025) adds that the integration of ICT also fosters innovative methodologies, making learning more dynamic and meaningful. Specifically in English language learning, ICT offers multiple benefits by providing interactive resources and digital platforms that reinforce students' linguistic competencies. In this way, technology facilitates continuous and more engaging practice of language.

Regarding its relevance, this study provides valuable information for society, teachers, and an educational institution. Perceive the integration of technological tools in their academic information. Likewise, it helps teachers incorporate educational technologies and design strategies that motivate students to use ICT more productively, contributing to a more modern and inclusive educational environment.

This research was developed under a qualitative approach using a structured interview, a questionnaire, and a classroom observation guide. This methodology makes it

possible to obtain in-depth information about participants' experiences and ensures a comprehensive understanding of the reality under study.

The general objective of this study is to examine the perceptions, expectations, and factors that influence the integration of ICT in English language learning, identifying both the elements that promote and those that limit their effective implementation. Finally, the study is organized into several sections: the introduction, which presents the purpose of the research; the theoretical framework, which explains the key concepts related to ICT and English learning; the methodology, which describes the qualitative approach used; the results obtained from data analysis; and the conclusions and recommendations.

## 2 Background

### International

The study conducted by Paredes (2021) aimed to determine the effectiveness of learning through virtual classrooms as a strategy in the development of education supported by Information and Communication Technologies (ICT) in the English area among students of a secondary educational institution in Peru. The sample consisted of eight first-grade students from a single section. A non-experimental research design with a descriptive approach was employed.

The findings demonstrated that the implementation of virtual classrooms significantly influenced students' English language learning. In conclusion, high levels of achievement (good and very good) were reached in the development of skills and meaningful learning as a result of applying cooperative learning, while in terms of infrastructure, the levels were rated as regular and deficient.

This study is closely related to the present research, as it addresses specific aspects such as the effectiveness of learning through virtual classrooms in relation to English language acquisition, as well as the population involved—secondary school students. The current research seeks to emphasize the importance of using ICT in English language learning and its implementation within classroom environments.

The study conducted by Jaramillo Payares and Cáceres Pico (2021) aimed to improve English listening comprehension skills through an ICT-mediated didactic strategy entitled “Listening–Flipped Classroom” among primary school students at the Santa Fe Educational Institution in Montería – Córdoba, Colombia. The sample included 21 children between 6 and 9 years old eight girls and thirteen boys from the second grade of the institution. This research followed a qualitative model based on the Pedagogical Action Research (PAR) methodology, resulting in a didactic strategy mediated by ICT.

Regarding the improvement of English listening comprehension through the implementation of the ICT-mediated flipped classroom strategy, as formulated in the third objective, the findings revealed a certain degree of progress. Ultimately, it was confirmed that under the principles of the flipped classroom model, a positive impact on learning was generated.

The work carried out by Jaramillo Payares and Cáceres Pico in 2021 is also related to the present study, as it implemented an ICT-mediated didactic strategy based on the flipped classroom model to strengthen English listening comprehension. The results showed a positive impact on learning, highlighting the effectiveness of ICT in promoting more active and participatory learning. Similarly, the current research shares the goal of assessing the role of ICT in the English learning process.

The study conducted by Medina Rodríguez (2021) aimed to determine the relationship between the use of ICT and English language learning among third-grade secondary students in Peru. The entire population of third-grade students was considered as the sample, totaling 134 participants who administered two instruments. The research was non-experimental, with a quantitative approach, descriptive method, and correlational design. The results confirmed a significant relationship between the use of ICT and English language learning among third-grade students. It was concluded that the use of ICT is evidently and significantly related to English learning.

The study developed by Medina Rodríguez presents a direct relationship with the current research, as it analyzed the connection between ICT use and English language learning in secondary school students. Its findings confirmed a significant relationship between both variables, evidencing that the incorporation of technological tools positively influences academic performance. The present study complements this contribution by not limiting itself to establishing the relationship between variables, but by exploring how students and teachers perceive such technological integration in their current educational environment.

The study conducted by Suarez (2024) aimed to analyze the relationship between ICT and English language learning among secondary-level students in rural areas of the Pichanaqui district. The sample consisted of 119 students from a rural school in Pichanaqui, who completed a validated and reliable research instrument containing 40 items. The study followed a quantitative approach, was basic in type, correlational in purpose, descriptive explanatory in depth, and non-experimental, correlational, and cross-sectional in design.

The results showed a significant influence between ICT and English language learning among secondary-level students in the rural areas of Pichanaqui in 2023. The study concluded that there is a significant correlation between both variables.

Likewise, the research conducted by Suárez in 2024 is related to the present study, as it analyzes the influence of ICT on English learning, although in a rural context. The results showed a significant correlation between ICT use and language learning, reaffirming its relevance even in environments with limited resources. In this regard, the current research seeks to broaden the understanding of this topic by considering the perceptions of those involved during the year 2025, thus contributing to a more updated and contextualized perspective on ICT integration in English language teaching.

The study conducted by Setiawati et al., (2024) entitled “Improving the Students’ Listening Comprehension Through English Listening App: A Classroom Action Research”, was carried out in Indonesia with a group of eighth-grade students. Its purpose was to evaluate the effectiveness of the application in enhancing students’ listening comprehension.

The research adopted a mixed-method classroom action research approach, which allowed for iterative adjustments that contributed to improved test scores. The Learn English Listening App proved valuable in developing students’ listening skills. In conclusion, the results of the second cycle’s t-test, supported by classroom observations and interviews, provided strong evidence of the application’s positive impact.

This background has a close connection with the present research, as both emphasize the importance of ICT. While the study in Indonesia employed a mobile application, the current investigation aims to analyze students’ perceptions of different digital tools to identify their impact on English learning.

### **National**

According to López Soza, (2024) in his research topic, ICT to improve listening skills in English language learning in higher education. The objective was to analyze the usefulness of information and communication technologies (ICT) to develop oral and listening skills in English language learning. The research carried out under the interpretive paradigm and as a qualitative approach was carried out with a sample of 30 fourth-year English students at UNAN-CUR Matagalpa. Where the results obtained reveal that, although almost all the participants have electronic devices, there is no evidence of their adequate use for learning purposes.

In relation to López Sosa’s study, the current research is similar because the research topic also seeks to analyze the use of (ICT) in the development of listening skills in secondary

school students through the implementation of ICTs in the classroom. In other words, this study seeks to demonstrate the importance of incorporating technological resources in educational centers to improve the teaching and learning of English.

According to Peña Lopez (2020) in this study, the objective was to analyze the impact of collaborative learning to promote oral practice of English during extracurricular hours among third-year English students during the second semester of 2017: Google Hangouts as a technological application. This study is positioned within the socio-critical paradigm, with a mixed approach, is descriptive and cross-sectional. The sample consisted of 38 informants, 4 teachers and 34 students. In conclusion, the study showed that it had a positive impact both on the motivational aspect of the students, as well as on their English language skills and communicative abilities.

According to the research conducted by Peña Lopez, the study in development is related to how the use of ICT helps improve English language learning skills and the positive impact that students obtain. This research also seeks to describe students' perceptions regarding the use of ICT in improving listening skills.

In the research carried out by Ortiz (2023) in Jinotepe Carazo, the main objective was to analyze the impact of didactic strategies using information and communication technology in the development of oral communication skills in third-year students of the English degree at FAREM-Carazo, the focus of this research is mixed, a sample of 12 students was selected, according to the author the results clearly reflect that the student is motivated and learns in a dynamic way, this allows learning in a way that activates essential and primordial sub-skills such as English pronunciation and phonetics through new teaching strategies supported by information and communication technology.

This research is concluded based on its objectives where it was found that with the development of the didactic strategy through ICT, the oral competence required in third-year students who will opt for the title of secondary education teachers (PEM).

This background is related to the present research since both investigations deal with the use of ICT and analyze how ICT can improve English learning, although both have different objectives where Ortiz focused on developing oral skills in students and in this study, we seek to know the perceptions of students and teachers about ICTs, both investigations focus on ICT.

In the research carried out by Reyes (2020) in Managua, the main objective was to design a didactic proposal to improve oral expression through the presentations of eighth grade high school students using technology and communication tools. The sample was made up of 8th grade "A" students, with 18 students. The approach is qualitative. According to the results of the rubric, it was evident that the students made the appropriate pauses, in diction they were quite correct since it was basically understood what they wanted to say, in terms of vocabulary, it was very limited or rather, excessively oriented by textual reading, little eye contact with the plenary was also noticed and finally, due to excessive reading, little mastery of the presentation was observed, based on the results it is concluded that 28 percent of the students do not know what oral expression is and 39 percent what an oral presentation is, 67percent of the students are not clear about the steps to structure an exhibition.

Regardless of the focus of both investigations, the relationship between this background and the present research is that both address the use of ICT to support student learning. While Reyes focused on how technological tools can strengthen oral expression in secondary school students, our research seeks to understand teachers' and students' perceptions of the integration of ICT into the English language teaching and learning process in general.

In the research conducted by Betanco García et al., (2021) in León, the main objective was to assess the importance of using ICT in the teaching and learning of Language and Literature with third-year students (2020 fourth year, 2021), regular-mode students. The sample consisted of Language and Literature students between the ages of 18 and 22. The sample consisted of 10 Language and Literature students (third-year, 2020 fourth year, 2021), regular-mode students, and five teachers from the Language and Literature Department.

This research was carried out using a mixed-method approach. As a result, the implementation of strategies to improve the proper use of ICT in the teaching and learning of Language and Literature is accepted. After assessing the importance of the Use and non-use of ICT in the teaching and learning of Language and Literature, the following conclusions were established: that teachers and students are familiar with the proper use of ICT. The causes of both the proper use and non-use of ICT were analyzed. It was also notable that the majority of students have access to different technological resources, the most common being a mobile device.

Although this background focused on the teaching of language and literature, the relationship it has with the present research is that both investigations analyze the integration of the use of ICT in learning, both studies seek to understand how the use of technology can improve the development of students' skills, and improve the educational dynamics between teachers and students, the present research seeks to know the perceptions of secondary school teachers and students about the use of ICT in the learning and teaching of English, both investigations seek to take advantage of ICT.

### **3 Problem statement**

#### **Characterization of the problem**

Over the years, the development of new technological tools has allowed significant advances in educational processes, especially in the learning of the English language. The integration of information and communication technologies (ICT) in education has transformed teaching and learning globally. Nowadays there are various resources that students can use in their learning process, facilitating a more practical and interactive education and promoting the development of multiple skills.

Although excellent benefits can be obtained with the implementation of these technologies, in this research the central problem that has been identified is the lack of effective integration of ICT in English classes in a secondary school in Estelí, therefore, this research seeks to know the perceptions about the integration of ICT of both students and teachers in the process of teaching and learning the language English. As well as to identify the factors that favor or limit the effective use of these tools.

According to previous studies such as those of Ortiz, (2023) and Betanco García et al., (2021) the use of ICT encourages the active participation and motivation of students through games and interactive activities, which confirms the great importance of these tools and how they can enhance learning in those who make good use of them.

#### **Delimitation of the problem**

This research will focus on the use of information and communication technologies (ICT). In one of the institutes in Estelí, during the second semester of 2025. This study seeks to provide evidence on the use of technological tools in English language learning; this problem has not been studied in this institute, so this research seeks to fill this gap focused on students and secondary school teachers according to their experience with the use of these tools.

Geographically, the research will be carried out in the department of Estelí, Nicaragua. The study will involve the eleventh grade B students and the teacher.

### **Problem Formulation**

What are the perceptions, expectations, and factors that promote or limit the integration of information and communication technologies (ICT) in English language learning in a secondary school in Estelí during the second semester of 2025?

### **Systematization of the problem**

What are the teacher's expectations and perceptions regarding the use of ICT in the English learning process?

What factors promote or limit the integration of ICT in the English learning process?

To what extent can a didactic portfolio with activities on digital platforms improve English language learning?

## 4 Justification

This research entitled Perceptions, expectations and factors that promote or limit the integration of Information and Communication Technologies (ICT) in fifth-year students of the secondary modality, arises from the need to understand how ICT influences the learning of the English language. Taking into account that nowadays, technologies play a very important role and that their use in learning spaces can contribute to students improving their language skills in the mastery of the English language.

As he puts it Antonio Cruz (2023), whereas combining technology with English classes not only helps learners improve their skills with these tools, but also allows them to incorporate English more effectively; Thanks to this, students can set their own learning pace and have a more meaningful and personalized experience.

This research is convenient since the integration of ICT within classrooms contributes significantly to the learning processes of the English language. Its use not only favors the development of the language skills necessary for the mastery of the language but also promotes the strengthening of essential technological skills for the student's professional training. In this way, students are promoted to be more competitive in a current context where the proper management of ICT is essential.

Rojas Bonilla (2013), states that the importance of the English language has increased over the years and more with the process of globalization, technology and language mastery are decisive to develop effectively in the world of work.

In addition, in the social field, this study promotes the use of technology in the learning of the language under study, making known the importance of its incorporation in the classrooms, for the improvement of student learning, It also promotes more interactive and updated learning, thus contributing to the professional performance of students.

At the theoretical level, the topic under development provides well-founded information about how the integration of ICT positively influences the improvement of students' learning processes. It also highlights the significance of its incorporation into the classrooms, allowing for the creation of more creative, practical and dynamic environments

At the methodological level, the research study is qualitative, which seeks to understand the perception and expectations of the teacher and students regarding the incorporation of ICT in English learning. In addition, a structured interview, observation

guide and a questionnaire will be developed, which will serve as data collection measures to obtain opinions.

## 5 Objectives

### **General objective**

To examine perceptions, expectations and factors that promote or limit the integration of Information and Communication Technologies (ICT) in English language learning in a secondary school during the second semester of 2025.

### **Specific objectives**

1. To describe the expectations and perceptions of the teacher regarding the integration of ICT in the English learning process.
2. To identify the factors that promote or limit the integration of ICT in the learning process of the English language in a secondary school.
3. To propose a portfolio of didactic activities based on digital platforms that foster English language learning among secondary school students.

## **6 Limitations of the study**

In the present study, several limitations were presented throughout its process. First, the temporal part constituted a significant challenge due to the academic calendar of the second semester of 2025, together with the need to coordinate the data collection instruments with the regular activities of the secondary school visited.

The time dedicated to the intervention of the qualitative instruments was interrupted by inconveniences within the center. These time constraints somewhat affected the depth of perceptions and the total representation of the observed class dynamics. This translates into unexpected events and last-minute changes in the institution's programming, which required adjustments in the work plan.

Finally, the internal coordination of the research team presented some challenges derived from the difficulty in complying with the agenda and maintaining face-to-face collaborative work sessions constantly, which, although it could be overcome with digital tools.

## 7 Basic Assumptions

1. It is considered that the teacher has positive expectations regarding the integration of ICT and perceives that these tools can help improve the teaching and learning of English
2. It is assumed that there are elements that facilitate or hinder the integration of ICT in English language learning for secondary school students.
3. It is proposed that the implementation of didactic activities supported by digital platforms contributes to the development of English language skills.

## 8 Emerging Categories, Themes, and Patterns of Research

**Table1**

*Category System*

Specific questions	Specific objective	Category	Definition	Subcategory	Technique and instrument	Resource of information
What are the expectations and perceptions of the teacher regarding the use of ICT in the English learning process?	To describe the expectation and perceptions of the teacher regarding the integration of ICT in English	Expectation and perceptions	Future expectations refer to the extent to which an individual expects an event to occur, which leads them to set goals and plan actions.	Positive perceptions and expectation Negative perceptions and expectation	Interview	Student and teacher

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	learning process.						
What factor promote or limit the integration of ICT in the English leaning process?	To identify the factors that promote or limit the integration of ICT in the learning process of the English language in a secondary school.	Factors that promote the integration of ICT  Factors that limit the integration of ICT	Factors that promote ICT integration include teacher competencies and attitudes, the availability of adequate technology resources and infrastructure, strong institutional support, and a clear alignment of ICT with educational goals.  Factors that limit ICT integration include a lack of resources, insufficient technical support, and limited professional development for staff.	Technological access  Lack of resources  Teacher digital competence  Institutional support	Observation guide	English class (teacher)	
To what extent can a didactic portfolio with activities on digital platforms improve English language learning?	To propose a portfolio of didactic activities based on digital	Didactic strategies regarding the integration of ICT	Effective didactic strategies for integrating ICT involve starting small with familiar tools, using technology to enhance rather than replace traditional methods.	Digital activities  Interactive platforms	Questionnaire	Students	

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platforms that  
foster English  
language  
learning  
among  
secondary  
school  
students.

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*Note.* The category system was created by the authors based on the research questions and specific objectives of the study

## 9 Research questions

### General question

What are the perceptions, expectations and factors that promote or limit the integration of Information and Communication Technologies (ICT) in English language learning in a secondary school during the second semester of 2025?

### Specific questions

1. What are the expectations and perceptions of students and teachers regarding the use of ICT in the English learning process?
2. What factors promote or limit the integration of ICT in the English learning process?
3. What digital strategies can be implemented through a didactic portfolio to enhance English language learning using ICT?

## 10 Theoretical Framework

### 10.1 Information and Communication Technologies (ICT)

#### 10.1.1 Definition

Information and Communication Technologies (ICT) can be defined in various ways, due to their rapid growth and significant contributions to different fields of society. Craig (1999) states that “Information and communications technologies (ICT) are a diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information” (p. 1).

According to Belloch Ortí (2011), “ICT are the set of technologies that enable access to, production, processing, and communication of information presented in different codes (text, image, sound, etc.)” (p. 1). Similarly, Salinas Ibáñez (2008) defines Information and Communication Technologies as all those means that allow the storage, processing, and transmission of information, not only through physical devices (hardware) but also by means of software programs.

This study will be based on the definition proposed by Craig (1999), who describes it as a set of various technological tools and resources. This perspective is pertinent to this research, as it allows us to approach the ICT concept from an integrate vision that contemplates its multiple functions and applications within the educational field.

#### 10.1.2 Importance

The “Information and communication technology (ICT) has revolutionized virtually every aspect of our life and work” (Organisation for Economic Co-operation and Development (OECD), 2015) In this way, many tasks are carried out using technology. In society, the use of ICT plays a key role in its development across different fields. These advances have paved the way for the development of environments where speed and efficiency in information handling and communication become essential elements. As detailed by (Carnoy, 2004) “The most significant of these is firms’ capacity to network among departments and individuals in the firm (sharing information, coordinating activity, performing operations in real time)”

ICT have also acquired a very significant importance at the global level, as they are present in many sectors in social, economic and educational development. In addition, it is present in health, industry, public administration and business services; these facilitate decision-making and

innovation by providing various ways of use. The United Nations Commission on Sustainable Development (UNCSD) (1997), add: “In the developed world, information and communication technologies are influencing revolutionary changes in the workplace and in society in general. The potential for these systems to promote and give impetus to the sustainable development of these countries is unquestionable.

## **10.2 ICT in education**

In the educational context, ICTs have had a significant impact that allows both teachers and students the opportunity to develop new experiences through the use. The proper management of new technologies brings excellent results for both personal and collective development, similarly, ICT promote the updating and learning of new knowledge, as stated by (OECD) (2015) “ICT also invites education to rethink the content and methods of teaching and learning”. (p.51)

ICT overcomes the limitations of traditional methods, allowing access to a more personalized process. Marquis Graells (2013), states “Without a doubt, new technologies can provide means for the improvement of teaching and learning processes and for the management of educational environments in general” The provision of interactive multimedia resources, access to vast sources of information and the implementation of active methodologies such as gamification are of great importance to facilitate the student's performance beyond the everyday.

In this way, technologies not only enrich the content, but also stimulate motivation and participation in students, resulting in the development of essential skills such as critical thinking and autonomy. Likewise, ICTs have allowed efficient and fluid communication between the institution, teachers and students, which favors in many fields within education.

## **10.3 Roles of ICT in education**

Information and Communication Technologies play multiple roles within the educational field, thus allowing optimal development in various areas of knowledge. Below, some functions of ICT are presented taking as a reference the research article (Vidal del Toro et al., 2015) that includes some functions in education.

### ***10.3.1 Communicative function***

In the communicative function, he details the use of ICT as a channel that serves as support for the message, he also adds the relationship that they have with the information that the student receives and the way in which it is transmitted. It is important to emphasize that ICT is currently a tool that allows communication not only within a classroom, but also outside it.

The great advances of these technologies and today's innovations have given way to more effective communication, where both teachers and students can maintain consecutive follow-up on the tasks they perform.

### ***10.3.2 Motivating function***

In the motivating function, the author refers to the fact that the media increases the motivation of students through the presentation of novel stimuli that promotes their autonomy, he also points out the security during the learning process and the variation in the tasks, key aspects to keep the student engaged.

The novelty of presentation and media integration act as an incentive and a way to engage the student by allowing immediate interaction with the study material and offering instant feedback. ICT transforms learning into a more dynamic and personalized experience along with student motivation, it is a key point that serves as an opportunity to support the student in obtaining new skills and developing their competencies.

### ***10.3.3 Navigation***

The navigation function in technological systems has a significant impact on student motivation, as it exposes students to new knowledge and media on an ongoing basis. By integrating various resources, the multimedia system represents a novel tool that optimizes the educational process. Navigation acts as a fundamental tool to optimize comprehension. In this way, learning is enhanced by offering a digital environment that adapts to the individual pace and the needs of the student.

The functions of ICTs mentioned above allow us to have a clear idea of the benefits they bring to education, which by making responsible use of new technologies allow rewarding and promising results to be obtained in terms of teaching quality, personalization of learning and development of new digital skills and competencies in both subjects.

## **10.4 The role of ICT in learning English**

The English language has established itself as the language that is most used worldwide, since it is a language that is used in different areas such as education, business, science, technology, etc., learning this language is an essential tool to be able to access many opportunities, to learn a new language today there are much more facilities and opportunities with the use of technology.

Information and communication technology (ICT) has acquired enormous relevance in contemporary society and in the educational field. For Alvarado Pazmiño et al., (2023) ICTs are a basic tool in the teaching and learning process, since they facilitate access to information, resources and applications that improve the educational experience.

English has been considered the most widely used language in the world, which is why many educational institutions integrate it into the curriculum. When we talk about English as a foreign language, we refer to the learning of a language different from that of the mother tongue, and which is also not the one used in the student's daily life and the environment in which they carry out their activities (Beltrán, 2017)

Julio (2018) explains that ICTs allow information to be stored, processed and transmitted through computers, mobile devices, educational platforms and various applications. Its implementation has transformed the teaching-learning processes, promoting interactivity, student autonomy, motivation and collaboration

### ***10.4.1 Learning theories***

Piaget (1952) asserted that learning is not simply about recognizing isolated concepts, but about actively structuring knowledge through connected networks, in other words, cognitive development involved building relationships between ideas, grouping concepts into logical classes, and constantly reorganizing mental schemas when new experiences or information arise.

By applying this conception to the learning of English with the use of ICTs, it can be argued that technological tools allow teachers to impart a broader form of learning where students build mental schemas more effectively. For example, through interactive platforms, videos, exercises, multimedia, and collaborative networks, students can relate grammatical structures, vocabulary, and communicative contexts in a dynamic way.

In addition, the use of ICT makes it easier for students to feed cognitive processes when facing more complex tasks, thus producing their own texts and strengthening their intellectual organization and at the same time having a deeper knowledge of the subject in question.

The behaviorism proposed by B. F. Skinner (1994), points out that learning implies visible modifications in behavior, which arise from the relationship that the individual establishes with the stimuli of his environment. From this perspective, it can be understood that learning English is a process in which students modify their behavior towards it depending on the stimuli they receive. These stimuli can be very easy to obtain by using the digital tools currently available, so that language learning has become more dynamic and entertaining for learners.

Lev Vygotsky (2018) was based on the sociocultural theory of cognitive development that both learning and human thought are essentially formed through social interaction. For this author, people incorporate new knowledge first in contact with others through interaction and then internalize it to use it autonomously.

Considering Vygotsky's theory, in the integration of ICT in the learning of the English language they acquire a fundamental role, since digital tools facilitate various forms of interaction that enhance linguistic development. Collaborative platforms, video calls, forums, applications and virtual environments give way to communication to receive support from teachers and students, as well as participation in activities that act as a vehicle for cognitive development.

Through these technology-mediated interactions, students not only practice the language, but also internalize structures and verb forms of the language, and in this way strengthen the competencies and skills necessary for their development in real life.

## **11 Methodological design**

### **11.1 Qualitative Approach Assumed**

The research adapts a qualitative approach since this approach allows analyzing the perceptions, expectations and factors that promote or limit the integration of ICT in the learning of the English language in secondary school students during their educational process. This approach allows us to identify in depth the perceptions of students and teachers, in the face of the integration of Information and Communication Technologies (ICT), in the improvement of learning in the English language.

According to Lisbon (2018), Qualitative research is an emerging paradigm that bases its epistemological and methodological vision on the subjective and intersubjective experiences of the subjects, whose practice is oriented towards the society constructed by man, where the versions and opinions of the thinking being interact, with respect to the facts and phenomena of study, to construct reality in a cooperative and dynamic way.

This research study is focused on the area of education, since it focuses on the teaching-learning of the English language in students of the secondary modality. It is framed in the CD1-: Education for development. According to UNAN-MANAGUA.(2021): Education for development studies quality educational processes based on the improvement of education systems, lifelong learning, the evaluation of educational quality, educational inclusion and teacher training and updating; which contribute to comprehensive learning, professional skills, human talent, management, administration and strengthening of educational actions for the development of the country. (pág. 16)

The research is also located in the CED-1.4 SUB-LINE: SUCCESSFUL EXPERIENCES IN SCHOOL, COMMUNITY AND INTERSECTORAL CONTEXTS. This sub-line of research focuses on the study of pedagogical innovation and the systematization of good practices in different learning contexts. UNAN-MANAGUA (2021, pág. 17)

### **11.2 Type of Research**

This research is descriptive since it seeks to systematically describe the perceptions of students and teachers regarding the use of ICTs, in the teaching-learning processes of the secondary English language during their educational process 2025. No seeks to manipulate variables, but to

offer a clear and precise vision of how participants live and understand the integration of ICT in their daily education.

### **11.3 Theoretical Sample and Study Subject**

The sample is a part of the population, which will be taken as the object of study, which is made up of all fifth-year students of the secondary modality. In this study, a sample of 10 students of fifth year B in the secondary modality was taken, which will be taken as the subject of study of this research.

### **11.4 Methodology**

For this research study, a methodology was applied with a qualitative descriptive approach, which seeks to analyze the perceptions of students regarding the use of ICT in the learning of the English language. In addition, data collection instruments such as interviews, questionnaires and observation guides were used. Which will be used to collect information that allows us to analyze how ICT contributes to the improvement of English language learning in the educational process of students during the year 2025.

### **11.5 Quality Criteria Applied**

Credibility will be reflected through observations, interviews and different sources of information, which demonstrate the real experiences of the perceptions of students and teachers regarding the integration of ICT in the learning of the English language.

In addition to transferability, this research will be detailed through the context that is the subject of study where the results can be applied to similar contexts. As for the dependency, it will be carried out through detailed documentation, throughout the investigation process.

In addition, the comfort of this research will be carried out through the collection of data obtained by the participants, evidence that the results obtained are real and not based on the author's opinions.

#### ***11.5.1 UNAN-Managua Quality Policy and Strategy***

The research study is based on the quality policy and strategies of the UNAN-Managua. Which establish the quality of education, the construction and development of relevant learning, which enables students to develop capacities to successfully face the challenges of life and that each one becomes a positive subject-actor for the community and the country. UNAN-Managua (2024)

1. **Focus on continuous improvement:** This approach is identified in this research study in which it analyzes how the implementation of ICTs can contribute to the improvement of English language learning in secondary school students, which through systematic review seeks to guarantee perfection and contribution to educational processes.
2. **Participation and commitment of the protagonists:** This criterion is reflected in the active participation of teachers and students in the perception and expectations of the implementation of ICTs in the learning processes in the English language.
3. **Management based on process and evidence:** In this part, each stage during the research process will be documented, from the planning of the study, the analysis of data and the results acquired through the application of the instruments for data collection, which will show the transparency of the study, through real data about the implementation of ICT in the improvement of learning in the English language.
4. **Ethical transparency and social responsibility:** The research is carried out solely for educational purposes, considering the consent of all participants, demonstrating integrity and transparency in the implementation of data collection instruments for the analysis of the study, which seeks to analyze the perceptions of students and teachers regarding the integration of ICTs; in learning the English language. This study seeks to contribute in the educational field to the development of interactive strategies to improve students' skills in learning the English language.

## **11.6 Methods, techniques, and instruments for data processing and analysis**

In this research, a qualitative approach was adapted aimed at understanding the perceptions and expectations of students and teachers regarding the integration of ICT in English language learning. This approach allows the meanings and experiences of the participants to be interpreted in a deep and contextualized way.

### **Method of analysis**

For the analysis method of this research, the inductive method was used, which consists of examining the data collected to identify emerging patterns and relationships.

According to Vidal (2023): The inductive method is a tool used in the field of scientific research to draw general conclusions from specific observations. Its objective is to infer laws, principles or theories based on accumulated empirical evidence.

### **Data processing and analysis techniques:**

The data processing and analysis techniques focused on the coding process, which consists of the process of identifying words, phrases, key expressions that reflected perceptions and expectations of students and teachers about the integration of ICT in English language learning. This procedure allowed recognizing recurring patterns and themes from the information obtained through the teacher interview, student questionnaire and classroom observation guide. Ensuring a systematic and rigorous analysis of the data.

### **Codification:**

According to Coined (2015), Codification is a term that covers a systematic and rigorous process of analysis and conceptualization through which procedures and strategies are applied that culminate in the emergence of a central category whose characterization will be expressed in terms of an emerging theory.

In addition, the triangulation process was implemented, which consists of comparing the information obtained by the students, teacher and observation guide. This technique made it possible to guarantee the validity and reliability of the findings obtained through the implementation of each instrument, as well as the consistency of the results. It also facilitated the identification of common patterns and emerging trends, strengthening the analysis and interpretation of the data collected.

**Triangulation**

According to Chaves (2020), triangulation consists of comparing data obtained through different data collection strategies and comparing the information obtained in different groups, contexts and times. Its purpose is to confirm the identified trends and strengthen the validity of the study by contrasting the data according to special temporal and analytical criteria.

## 12 Analysis and discussion of results

In a broad sense, qualitative methodology can be defined as research that produces descriptive data: people's own words, spoken or written, and observable behavior. Quecedo Lecanda & Castaño Garrido (2002), which means that this type of methodology allows for an in-depth understanding of the experiences and perceptions of the participants within their own context.

In this study, three instruments were applied: a structured interview with the high school English teacher, an observation guide for the English class, and a questionnaire addressed to the students. These instruments made it possible to analyze the phenomenon from a qualitative perspective and to obtain key information on perceptions, expectations and experiences in relation to the integration of ICT in the educational field.

### Objective 1

Describe the expectations and perceptions of the teacher regarding the integration of ICT in the English language learning process.

#### 12.1 Perceptions of ICT integration

The analysis of the interview addressed to the teacher allowed us to identify the perceptions of the teacher regarding the integration of ICT in the learning of the English language. First, it was evident that the teacher perceives ICT as: those tools that promote and facilitate the teaching-learning process in educational environments. In addition, the teacher emphasizes the importance of using these tools for the motivation, interaction and improvement of students in their academic training, where they can develop their skills in a more creative and innovative way through the variety of resources that these tools provide such as the search for information, access to interactive videos and the use of educational applications.

Likewise, the teacher's perspective, reveals that, although students show greater interest and motivation to actively participate in the integration of ICT for learning English, there are factors that limit its actual use in the classroom. Among these factors, the teacher points to students' lack of access to appropriate technological devices, such as computers or mobile phones capable of running the necessary educational applications.

This situation hinders the implementation of digital strategies and limits the scope of planned activities. Furthermore, the teacher perceives the poor internet signal quality as a constant obstacle. A poor, unstable connection affects online classes, the sending of materials, access to educational platforms, and the continuity of learning.

It also emphasizes how the integration of these tools has a positive influence within the classroom, stimulating students' attention and active participation. In other words, the teacher perceives the integration of ICT as a very useful tool for improving learning. In comparison with the definition of the teacher in relation to ICTs, we can relate it to Julio's (2018) statement that ICT allow information to be stored, processed, and transmitted through computers, mobile devices, educational platforms, and various applications. Its implementation has transformed the teaching-learning processes, promoting interactivity, student autonomy, motivation and collaboration.

## **12.2 Expectations of ICT integration (ET)**

The teacher's expectations of ICT are positive, describing how environments can be modified and new learning experiences created. In addition, it highlights the benefits that students can obtain if ICT is incorporated into learning as a tool to improve English language learning.

This definition of the teacher is related to what Sonia et al., (2023) point out: virtual platforms have been incorporated as the basis for the teaching strategies used by teachers in the classroom, as they have demonstrated their positive impact on the teaching and learning processes of students. In other words, the integration of these digital platforms in learning environments has a positive influence on the development of English language learning skills, such as listening comprehension, writing, learning new vocabulary, among others.

### **Objective 2**

To identify the factors that promote or limit the integration of ICT in the learning process of the English language in a secondary school.

## **12.3 English class observation guide**

The integration of information and communication technologies (ICTs) in the teaching and learning process depends on a set of elements that have a direct impact on the moment when teachers and students incorporate technologies into the educational process. The following are the main factors that favor or limit the integration of ICT in the institute where this research was carried out, identified through the observation guide.

#### **12.4 Factors that promote ICT integration**

During the analysis of the observation carried out to identify the factors that promote the integration of ICT in the institute, in the learning of the English language, it was evidenced that students have mobile devices, such as smartphones, internet access and have an ICT classroom available. These resources represent favorable conditions for the integration of technologies in English language learning. However, although these resources are present, a pedagogical use aimed at promoting learning that helps students develop their English language learning skills was not observed.

According to Nuñez, (2024), technology tools can provide access to a variety of educational resources that can enrich the curriculum and provide more diverse learning experiences in educational settings. This implies that technology in education. It contributes to improving learning processes so that students can learn in a more dynamic, innovative and at the same time fun way.

#### **12.5 Factors limiting ICT integration**

The integration of ICT in the educational process does not occur by itself but depends on various elements that influence how teachers and students use these tools in the classroom. Through the observation guide carried out, factors that limit the integration of these tools in the classroom were identified, the results reflect that the teacher faces certain difficulties to actively integrate ICT during the teaching process, these difficulties may be associated with the lack of training in relation to technologies. Therefore, there is limited use of the available resources, since there was no evidence of planned activities in relation to technology in an intentional and pedagogical way. Although the students used their phones to translate, this use is considered indirectly, since it was not part of a teaching strategy designed by the teacher.

According to Sierra Llorente, Palmazeda Cordoba, & Romero Mora (2017). The results of the analysis conclude that the problems for this incorporation come fundamentally from the training of teachers, the infrastructure that classrooms must have and the level of use of tools that the teacher must acquire for the society in which we find ourselves. This result is consistent with what was found, since one of the difficulties is teacher training.

### **Objective 3**

To propose a portfolio of didactic activities based on digital platforms that foster English language learning among secondary school students.

#### **12.6 Student Questionnaire**

In the questionnaire carried out to fifth year an English students, the purpose was to identify the technological activities that students would like to be integrated into their English classes. And in this way guide the development of a didactic portfolio that responds directly to their interests and needs.

Through the results obtained, it was evident that students have a highly positive perception towards the integration of information and communication technologies (ICT) in the process of learning the English language. Where the students expressed that the use of technological resources can make classes more understandable, dynamic and motivating.

In relation to the preferred activities, it was identified that students showed a clear inclination towards online activities, digital platforms, and interactive activities. Likewise, they mentioned the contents that they would like to practice through these resources, mainly vocabulary and grammar were highlighted with greater frequency of response, although some students mentioned resources such as videos and podcasts, however, these options were of lower frequency of responses.

The following table summarizes the main categories emerged from the questionnaire applied to the students, supported by direct quotes from the participants.

**Tabla2**

*Main perceptions of students regarding ICT (Questionnaire)*

Category	Quote
Integration of ICT	“They are a very good option for... our development”
Type of technological tools	“I find online games interesting”
Content learning through ICT	“I would like to practice... the vocabulary” “I would like to practice...specially grammar”

*Note.* Table created by the authors based on the findings of the questionnaire applied to the students

When comparing these results with the findings of Suarez (2024) in their study, the results showed a significant influence between ICT and English learning among secondary school students in rural areas of Pichanaqui in 2023. In the present research, the students did not explainingly state that the use of ICT has improved their learning, however, they showed a very favorable attitude and a high level of motivation towards the incorporation of technological tools.

## **Practical Proposal**

Portfolio of Didactic Activities Based on Digital Platforms

## Introduction

In the current educational context, the integration of technology has become a fundamental need to improve teaching and learning processes. English, recognized as an essential language for global communication and professional development, requires didactic methodologies that allow us to go beyond traditional approaches, actively seeking student participation and motivation.

Generations of adolescents are immersed in a digital environment, which makes it imperative that pedagogical strategies incorporate the technological tools that are familiar to them. Learning English as a foreign language requires innovative strategies that motivate students and respond to their learning styles. As Prensky (2001) adds, the use of digital technologies responds to the needs of the so-called “digital natives”, who learn more effectively using these tools in the classroom.

Digital platforms such as Kahoot and Wayground (formerly known as Quizizz) allow for the incorporation of educational activities based on participation, healthy competition and immediate feedback. This helps to improve grammar; vocabulary use and interest in the language. In this way, the integration of these tools within a digital portfolio of activities can promote a more dynamic, accessible and attractive educational experience.

In addition, during the professional internship period, it was possible to observe the lack of use of digital resources available in the secondary school visited. Likewise, it was evident that classes focused only on explanation did not always manage to capture the attention of students or promote their active participation in the process of learning English and in the development of new skills. Therefore, the present work aims to propose a set of didactic activities based on digital platforms that promote the learning of English among secondary school students.

## **Objective**

### **General Objective**

To propose a portfolio of didactic activities based on digital platforms that promote the learning of English among secondary school students.

### **Specific Objective**

1. To design activities on the Kahoot digital platform to improve grammar in the English language
2. To design vocabulary activities in the Quizizz tool to motivate students to learn the language
3. To create a comparative chart regarding student scores on digital platforms

### **Competencies to be achieved**

This portfolio aims to demonstrate the progressive development of fundamental competencies for learning the English language and the pedagogical use of technological tools. Among the competencies to be achieved are

#### **Communication skills**

The student will be able to understand, produce and express ideas clearly and coherently orally and in writing, using the knowledge of grammar and vocabulary learned.

#### **Digital skills**

Effective and responsible use of technological tools such as Kahoot and Wayground to improve learning, manage academic activities and analyze performance results.

#### **Critical thinking competence**

The student will be able to reflect on their learning process, interpret the results obtained through digital activities and make informed decisions.

## **Development**

With the passage of time, there has been a great boom in the creation of different digital platforms that are of great importance in different contexts. In the educational environment, tools that facilitate the teaching-learning process can be used, such as Kahoot and Wayground. These tools include different functions that allow them to be versatile when used in the classroom.

According to Sonia et al., (2023), virtual platforms have been incorporated as a basis for the teaching strategies used by teachers in the classroom, as they have demonstrated their positive impact on the teaching-learning processes of students. In other words, the integration of these digital platforms in learning environments has a positive influence on the development of English language learning skills. Jean Piaget (1952) stated that: “In other words, intelligence it is the construction of relationships and not just identification. The elaboration of schemas implies a logic of relations as well as a logic of classes. Consequently, intellectual organization is fruitful in itself” (p.418). This reflection highlights that knowledge is not limited to recognizing or repeating information, but consists of establishing meaningful connections between concepts, experiences and situations.

For Piaget, human intelligence develops through the structuring of mental schemes that allow us to understand the relationships between objects, actions and meanings that make up reality. In this way, the individual’s mind does not act as a simple receiver of information, but as a dynamic subject of knowledge. The fecundity of the intellectual organization to which Piaget refers suggests that thought has the capacity to generate new ideas, deductions and understanding from previously constructed relationships. In the educational field, this understanding highlights the importance of promoting reasoning and the active construction of learning, instead of being limited to the memorization of content.

The implementation of the digital portfolio will be in the English class, taking into account the needs observed in secondary school students, firstly, a series of activities will be developed using digital platforms such as Kahoot and Wayground with the purpose of reinforcing specific aspects, such as: grammar and vocabulary. In the same way, topics and verb tenses that are in accordance with the institute’s study program will be addressed.

Subsequently, the progress of the students will be monitored through the review of the results obtained on the platforms, recording the most relevant scores and observations in a comparative table included within the portfolio. This instrument will serve as a tool for the teacher

to develop a more innovative class and for the student to become more integrated into the class and motivated to continue learning.

The resources to be used and with which this project will be developed are the following:

1. Computer
2. Projector
3. Internet connection
4. Smartphone

In addition, this proposal also includes a comparative table that will allow monitoring and evaluating the results of the students in the grammar and vocabulary exercises. For the preparation of the portfolio, a review of the secondary education curriculum was made to ensure that the activities, evidence and analysis of the contents, competencies and guidelines are in accord. This approach not only seeks to present information, but also to demonstrate the student's growth.

Below are some images related to the creation process

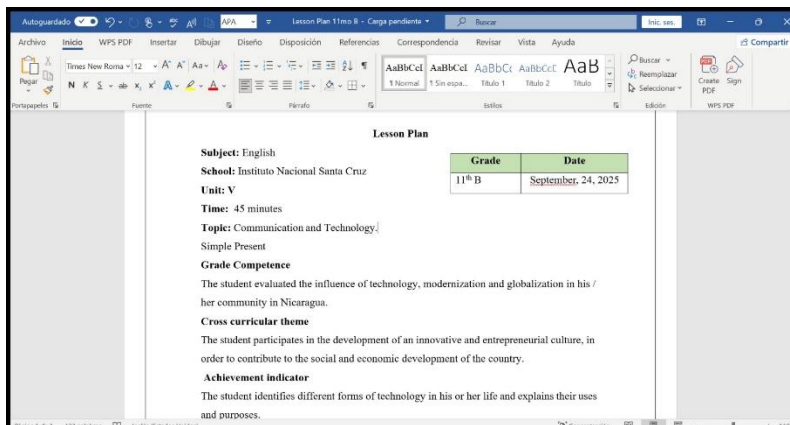


Figure 1

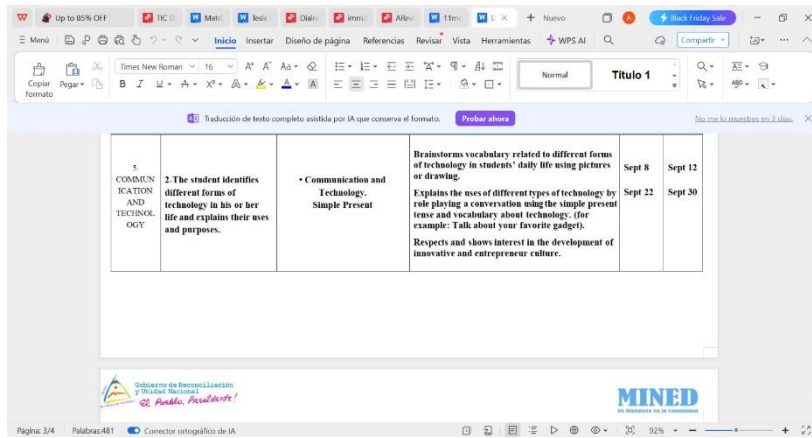


Figure 2

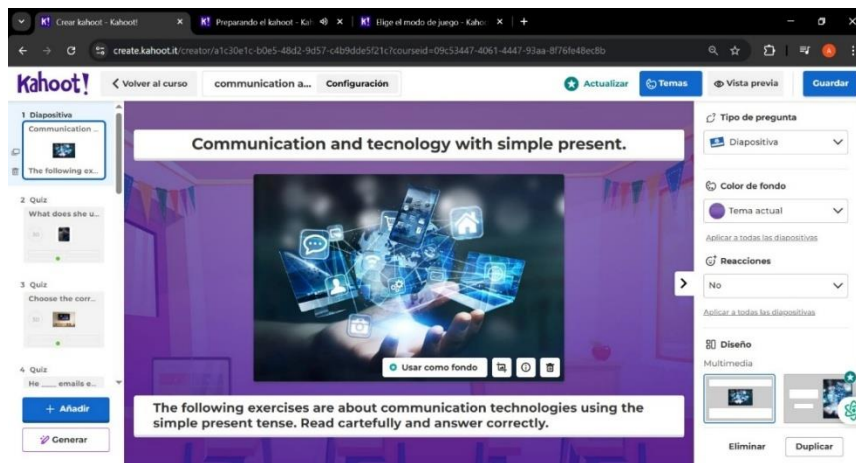


Figure 3

## **Conclusion**

In conclusion, this didactic proposal arises from the need observed in an institute, where the use of technological tools is scarce, which does not arouse the interest of students that allows them to help them in their learning, therefore the purpose of the elaboration of this work sought to strengthen the process of teaching and learning the English language through the implementation of a didactic portfolio with activities such as methodological strategies. This was intended to create a dynamic and motivating environment for students, as well as for the teacher who will have the opportunity to plan, evaluate and organize an effective class.

These activities were carried out using the technological tools of Kahoot and Wayground, in the same way, a comparative table was created to evaluate the progress of the students. These tools respond to the needs of today's young people, who are familiar with the use of technology, on the other hand, they improve traditional methods and move towards an approach in line with modern demands. By integrating digital tools, the aim is to effectively take advantage of the available resources and generate a pleasant atmosphere in the classroom.

In general, this proposal not only addresses a gap observed in the institute but also establishes an innovative and pertinent alternative to increase student performance. Its good use can benefit and enhance the educational process and specifically the learning of the English language

## 13 Conclusion

The purpose of this research was to analyze the role played by information and communication technologies (ICT) in the teaching-learning process of the English language in one of the secondary schools of Estelí. The main conclusions are detailed below according to the objectives set out in the research.

### **General objective**

To examine perceptions, expectations and factors that promote or limit the integration of Information and Communication Technologies (ICT) in English language learning in a secondary school during the second semester of 2025.

The general objective was achieved, since the study made it possible to clearly identify through the instruments applied the perceptions and expectations about the integration of ICT, as well as the factors that promote or limit the integration of these resources in English classes.

The conclusions obtained from each of the specific objectives are presented below.

### **Specific objectives 1**

To describe the expectations and perceptions of the teacher regarding the integration of ICT in the English learning process.

When examining the perceptions and expectations through the interview, it is concluded that the teacher showed a positive attitude towards ICT information and communication technologies, as well as recognizing that the implementation of these tools can make classes more dynamic and motivating. However, this assessment was not reflected in his English classes, since during the observed class the use of technological tools was not implemented, in this way it is concluded that the teacher has a limited mastery of technology and lack of interest in integrating these tools in English classes.

### **Specific objectives 2**

To identify the factors that promote or limit the integration of ICT in the learning process of the English language in a secondary school.

Regarding the factors that promote or limit the integration of ICT in English classes, it is concluded that the main elements that promote the integration of ICT are the resources available in the educational center such as computers, projectors, Wi-Fi, and the mobile devices that students have, these are the resources that can enhance the integration of

technological resources. on the contrary, the factors that limit their integration are the limited technological mastery of the teacher and the lack of interest in integrating these resources in the classroom.

### **Specific objectives 3**

To propose a portfolio of didactic activities based on digital platforms that foster English language learning among secondary school students.

On the other hand, the information obtained in the questionnaire reveals that the students as well as the teacher have a very positive attitude towards the use of ICT in the learning of the English language, in the same way it is concluded that students prefer digital activities focused on the learning of vocabulary and grammar through interactive platforms and activities. They expressed that ICT presents an opportunity to learn in a more interesting and attractive way.

In this way, a digital portfolio is proposed that includes didactic activities based on digital platforms, these activities will reinforce the vocabulary and grammar of English, this portfolio represents a viable alternative for the teacher to implement in their classes and promote meaningful learning.

## 14 Recommendation

According to the analysis of the results, it is considered pertinent to establish recommendations for the use of information and communication technologies (ICT) to guarantee a better quality in the use of information and communication technologies (ICT) and that they have a satisfactory impact on the process of teaching and learning the English language.

1. It is very important that educational institutions provide spaces for continuous training to teachers so that they can strengthen their knowledge and mastery with the use of existing technologies and can take advantage of these resources in the best way.
2. It is suggested to improve the availability of devices to promote and facilitate the use of technological tools.
3. It is suggested to take advantage of the positive attitudes that students have towards ICT by designing interactive, collaborative activities focused on active learning of English.

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## Appendix A. Data Collection Instrument

### Interview to the Teacher

Age: \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_

Gender: \_\_\_\_\_

Dear teacher,

We are currently conducting a research study entitled “Perceptions, expectations and factors that promote or limit the integration of Information and Communication Technologies (ICT) in English language learning.” Through this instrument, we aim to collect information that will allow us to identify your perceptions regarding the integration of ICT in the English language learning.

Your participation is highly significant, as your responses will provide valuable data for achieving the objectives established in our research. All information provided will be treated with strict confidentiality and is essential for the successful completion of our research. Thank you for your valuable participation in this interview.

1. What do you understand about Information and Communication Technologies (ICT)?
2. What is your opinion about the integration of ICT in the learning of the English language?
3. Could you share an experience in which you have used any form of technology in your English classes? How did it contribute to your students’ learning?
4. Do you consider the integration of ICT in English language learning important nowadays? Why?
5. What benefits or limitations do you perceive in the integration of ICT in English language learning?

6. From your point of view, in what ways can the integration of ICT influence students' motivation, learning, and participation?
7. What suggestions would you make to strengthen the integration of ICT in English language learning within your educational context?

## Interview for the student

Age: \_\_\_\_\_ Date: \_\_\_/ \_\_\_/ \_\_\_\_\_

Gender: \_\_\_\_\_

Dear student, we are currently conducting a research study entitled “Perceptions, expectations and factors that promote or limit the integration of Information and Communication Technologies (ICT) in English language learning.” Through this instrument, we aim to collect information that will allow us to identify your perceptions regarding the integration of ICT in the English language learning.

Your participation is highly significant, as your responses will provide valuable data for achieving the objectives established in our research. All information provided will be treated with strict confidentiality and is essential for the successful completion of our research. Thank you for your valuable participation in this interview.

1. What is your opinion about new technologies nowadays, and the importance of incorporating them into classrooms to improve English language learning?
2. From your point of view, how can ICT contribute to improving English language learning?
3. Have you had any experience using technology in your English classes that contributed to your learning of the English language? What was your experience like?
4. Do you think a more interactive environment can be created by integrating ICT in the classroom? Why?
5. Do you consider the integration of ICT in English language learning important nowadays? Why?
6. Creating a classroom environment where ICT are incorporated. Do you think it would be beneficial for your English language learning?
7. Would you like to use technological tools to improve your English language learning? Why?
8. What challenges have you experienced when using technological tools for learning English?

## Observation guide

Dear teacher,

This observation guide is designed to analyze the factors that promote or limit the integration of Information and Communication Technologies (ICT) in the English learning process. The observation will be carried out in a respectful and professional manner, ensuring your confidence and comfort throughout the process. The guide consists of eight categories, each accompanied by specific indicators that allow for a detailed analysis of the learning process. Each category includes a rating scale to assess the degree to which the indicators are observed in the classroom context. Additionally, a section for qualitative notes is provided, enabling the observer to record relevant comments, interpretations, or contextual information that may enrich the analysis.

The information collected will be used solely for academic purposes and treated with strict confidentiality. The goal is not to evaluate or judge the teacher, but to understand and describe the learning context and identify opportunities to enhance the use of ICT in English language learning in class.

<b>OBSERVATION GUIDE</b>			
<b>Date</b>		<b>Observers</b>	
<b>Group</b>		<b>Time</b>	
<b>Category</b>	<b>Observation Indicators</b>	<b>Rating Scale</b>	<b>Interpretative/Analytical Considerations in Relation to the Observed Aspect</b>

<p><b>Pedagogical Use of ICT</b></p>	<p>The teacher uses digital tools (videos, presentations, interactive platforms, etc.) that are integrated into learning activities to complement the class.</p>	<p>Yes No Partially</p>	
<p><b>Teacher's Attitude Toward ICT</b></p>	<p>The teacher shows willingness and interest in using technological resources, and positive or negative expressions toward ICT are evident.</p>	<p>Positive Negative Neutral</p>	
<p><b>Student Participation</b></p>	<p>Students show interest or motivation when technological resources are used and actively engage in ICT-mediated activities.</p>	<p>High Medium Low</p>	

<p><b>Infrastructure and Technological Resources</b></p>	<p>Observation focuses on whether the classroom has internet connection, available technological equipment (computers, projectors, speakers, etc.), and whether environmental conditions allow the integration of ICT (electricity, space, maintenance).</p>	<p>Adequate Inadequate Partially</p>	
<p><b>Factors Limiting ICT Integration</b></p>	<p>Observation focuses on the lack of technological resources, insufficient teacher training, technical problems, limited class time, or content overload.</p>	<p>Observed Not Observed</p>	
<p><b>Resistance or Lack of Knowledge Among Students</b></p>	<p>Observation focuses on whether students show resistance to using technology or face difficulties managing it.</p>	<p>High Medium Low</p>	

<p><b>Teacher’s Level of Mastery of Available Technology</b></p>	<p>Observation focuses on the teacher’s ability to effectively handle the available technology during different activities.</p>	<p>High Medium Low</p>	
<p><b>Factors Promoting ICT Integration</b></p>	<p>Institutional support (school administration, educational policies), the teacher’s interest in innovation and professional development, students’ active participation, and the availability of resources.</p>	<p>Observed Not Observed</p>	
<p><b>Additional observations</b></p>			

**Appendix B. Schedule of Activities and reduction matrices**

Activities	March			April				May				
Background												
Problem Statement												
Justification												
Objectives												
Limitations of the study												
Operationalization of Variables and/or Category Matrix												
Methodological Design												
Final Review and Adjustments												
Final presentation												

## Teacher Interview Reduction Matrix

Item	Answers	Researchers' Commentary/Analysis
What do you understand about Information and Communication Technology (ICT)?	They are all those technologies that... facilitate the teaching-learning process	The interviewee conceives ICT as tools that improve or facilitate the teaching-learning process.
What is your opinion about the integration of ICT in the learning of the English language?	They are a very important tool in language learning... it allows the student to motivate him and work in a self-taught way	A positive opinion stands out, where the benefits obtained by integrating technology are emphasized.
Could you share an experience in which you have used any form of technology in your English classes? How did it contribute to your students' learning?	In my case, they have been used... platforms such as: Duolingo and the Worksheet platform since it allows the student to work interactively in the English language	It is evident that the use of digital tools allows for the creation of good learning experiences.
Do you consider the integration of ICT in English language learning important nowadays? Why?	With globalization... They play a very important role in the teaching of the English language, since the child is more motivated and can work interactively	It describes the relevance of the integration of ICT in the teaching-learning process of English today.

<p>What benefits or limitations do you perceive in the integration of ICT in English language learning?</p>	<p>He is motivated to participate more in the teaching of the language... and one of the limitations is that... they don't have access to buy a computer or to buy a good cell phone on which all these applications can work.</p>	<p>The advantages and limitations of integrating technologies in the classroom are described.</p>
<p>From your point of view, in what ways can the integration of ICT influence students' motivation, learning, and participation?</p>	<p>They influence in a positive way... because they are quite interested in what it is to work with interactive videos, with interactive pages, with illustrations</p>	<p>It highlights the way in which ICT directly influences the classroom, since it allows the student's attention to be captured.</p>
<p>What suggestions would you make to strengthen the integration of ICT in English language learning within your educational context?</p>	<p>To better equip laboratories with better machines and better internet signal</p>	<p>He adds the need to equip the space for the use of ICT with better technological devices and access to the internet.</p>

## English Class Observation Guide.

Item	Observation	Researchers' Commentary/Analysis
The teacher uses digital tools (videos, presentations, interactive platforms, etc.) that are integrated into learning activities to complement the class.	During the observed class, the teacher did not make use of digital tools.	It is evident that the teacher does not use technology in his English classes.
The teacher shows willingness and interest in using technological resources, and positive or negative expressions toward ICT are evident.	The teacher showed a neutral stance in relation to the use of ICTs.	The teacher maintained a neutral stance according to the use of technological resources, which can be reflected as a lack of interest in integrating ICT in English classes.
3. Students show interest or motivation when technological resources are used and actively engage in ICT-mediated activities.	The interest or motivation on the part of the students was not identified.	As the use of technology is not integrated into the English class, the level of interest or motivation on the part of the student cannot be determined. However, students today are quite apt to use technology.
Observation focuses on whether the classroom has internet connection, available technological equipment	It was observed that the classrooms where regular classes are taught, the space is not fully equipped, although there is a specific	The observation reveals a gap between the regular environment for the teaching-

<p>(computers, projectors, speakers, etc.), and whether environmental conditions allow the integration of ICT (electricity, space, maintenance).</p>	<p>place for the use of ICT where computers, projector and Wi-Fi can be accessed.</p>	<p>learning process and the place designated for ICT.</p>
<p>Observation focuses on the lack of technological resources, insufficient teacher training, technical problems, limited class time, or content overload.</p>	<p>The lack of equipment in the regular class environment was observed, in addition to the lack of interest on the part of the teacher in using technology, as well as the interruption in the class period.</p>	<p>Some of the disadvantages of integrating ICT in the classroom, which prevents the development of new skills with technology, are identified.</p>
<p>Observation focuses on whether students show resistance to using technology or face difficulties managing it.</p>	<p>No resistance from the students was observed.</p>	<p>As technology was not integrated into the classroom, it was not possible to evidence positive or negative reactions from students towards its use.</p>
<p>Observation focuses on the teacher's ability to effectively handle the available technology during different activities.</p>	<p>In the observation, it was possible to verify a low inclination towards the use of ICT in the teaching-learning process of English by the teacher, so that the level of use of these tools is not known with certainty.</p>	<p>The effectiveness of the teacher with respect to the use of ICT is still unknown due to the factors that intervene in the school environment and their attitude.</p>
<p>Institutional support (school administration, educational policies), the</p>	<p>Internet access and ICT classrooms.</p>	<p>Despite the factors identified that promote the integration of ICTs, such as access to</p>

teacher's interest in innovation and professional development, students' active participation, and the availability of resources.

the internet, ICT classrooms and mobile devices such as cell phones, their use was not evidenced directly in the classroom.

### Student Questionnaire Reduction Matrix

<b>Item</b>	<b>Answers</b>	<b>Researchers' Commentary/Analysis</b>
1. How do you assess the integration of technological tools in the English class?	Technological tools are valued positively as they facilitate more dynamic, interactive learning and motivate students.	The answers show that students perceive the integration of technological tools as a highly beneficial and positive resource.

<p>1. In your opinion, how do you think ICT contributes to the learning of English in the classroom?</p>	<p>Students believe that ICT helps them in the following ways:</p> <p>Facilitates learning Contributes to improving their English skills. It offers dynamic and visual resources, and access to interactive materials.</p>	<p>Students reflect a positive impact of ICT on their English learning process.</p>
<p>2. How would you feel if you had fun engaging classes using technology?</p>	<p>Students would feel very motivated and enthusiastic about fun and participatory classes that make use of technology, their interest would be increased, and they would enjoy their learning process more.</p>	<p>It is evident that students feel very motivated and enthusiastic when they use technology, this shows that the use of technological tools increases the interest of students.</p>
<p>3. Would you like to see the use of ICT more incorporated in your English classes? Why?</p>	<p>Students would like to incorporate more the use of ICT in English classes, they consider that these tools make learning more dynamic, interactive and motivating, and they also express that</p>	<p>With the integration of ICT, more dynamic and interesting learning is promoted for students.</p>

	they provide them with a diversity of resources.	
4. What kind of digital activities do you find most interesting to learn English? for example, online games, interactive activities, videos, podcasts, among others.	Most students expressed that they would like to learn English with online games and interactive activities, others said podcasts and videos.	Students have a greater connection to resources that combine entertainment and learning.
5. How do you rate the use of technology in English language teaching?	Very well, was the qualification given to technologies in the teaching of English.	It shows that technology is of great value in the teaching of English.

<p>6. What benefits do you think the use of technological tools could bring to improve English language learning?</p>	<p>According to the students, they consider that the use of ICTs provides many benefits such as practicing English language skills, providing dynamic learning, and easy access to information.</p>	<p>Technology provides several benefits to the English learning process.</p>
<p>7. What difficulties do you face when using technological tools to learn English?</p>	<p>Among the difficulties that students have with using ICTs were the following: distractions, difficulty understanding content, poor internet connection.</p>	<p>It is evident that, although ICTs are of great help, there are also certain problems, which require adequate conditions for their effective use.</p>

<p>8. What aspect of the English language as (vocabulary, pronunciation, listening, grammar, speaking, etc.) would you like to practice using technology? why?</p>	<p>grammar, vocabulary</p>	<p>ICT tools are of great support for all those specific areas that require practicing or improving the English language.</p>
<p>9. With the use of technology, what kind of activities in English would you like to study?</p>	<p>Interactive games, vocabulary, grammar,</p>	<p>It is stated that students are attracted to those activities that provide them with an interactive and dynamic environment.</p>

## Results Triangulation Table

Category	Analysis	Triangulation or summary
<p><b>Interview with the teacher</b></p> <p><b>Perceptions of the ICT integration.</b></p> <p><b>Expectations of ICT integration.</b></p> <p><b>Negative perceptions and</b></p>	<p>It was evident that the teacher perceives ICT as tools that promote and facilitate the teaching-learning process. He believes that these technologies promote motivation, interaction and improvement of students in their academic training.</p> <p>The teacher perceives that ICT positively influences the learning and academic development of students; however, he also recognizes that there are factors that can become an obstacle to their use in a real classroom</p>	<p>According to Benavides &amp; Gomez Restrepo (2005), triangulation refers to the use of various methods (both quantitative and qualitative), data sources, theories, researchers, or environments in the study of a phenomenon.</p> <p>Based on the analysis of the instruments applied, triangulation was carried out according to the data obtained in the three instruments, an interview with the teacher, an observation guide in the English class and a questionnaire applied to the students. Through which coincidences and differences were identified, it was also possible to identify what was proposed in the objectives.</p> <p>Through the data from the interview with the teacher, a positive perspective and perception towards the incorporation of ICT was identified, the teacher recognizes the importance of technologies that can dynamize classes, motivate students and facilitate the learning of English, said the teacher.</p>

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<b>Guide to observation</b>	<b>expectations of ICT.</b>	environment, such as the lack of access to computers, suitable smartphones, and a good internet signal.	However, when contrasting this information with the class observation guide and certain student responses, there was a disagreement, the teacher did not use ICT during the class, which shows a lack of management and interest in integrating technologies.
	<b>Factors that promote ICT integration</b>	During the analysis of the observation carried out to identify the factors that promote the integration of ICT in the learning of the English language, it was evident that students have mobile devices, such as today's smartphones, access to the internet and also have an ICT classroom. But even though they have these devices that serve as factors that promote the integration of ICT in the classroom, it is not evident that they are used to promote learning that helps	Finally, the result of the questionnaire applied to the students showed a very positive attitude towards ICT information and communication technologies, where they also showed a clear preference for digital activities aimed at learning vocabulary and grammar through interactive platforms and online games. In the same way, the students mentioned that the integration of these technological tools would make the classes more dynamic, accessible and motivating. When interpreting the information from the three instruments, a partial coherence was identified in the perceptions of the students and the teacher, where both mentioned the positive value that ICT has in the educational field, however, the lack of integration of ICT in the classroom where technologies are not being used directly was observed. Which is identified as one of the factors that prevent the integration of these tools.

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**Factors  
limiting  
ICT  
integration**

students develop their English language learning skills.

Through the observation guide carried out, factors that limit the integration of these tools in the classroom were identified, according to the results obtained are, the level of mastery that the teacher has about the technologies which determines the lack of integration of these tools, as well as the lack of interest on the part of the teacher, which determines the lack of integration of these resources in the classes

Finally, these findings provide an opportunity for significant improvement in the implementation of pedagogical strategies supported by technologies, both the teacher and the students show interest in the use of these tools. Since triangulation allowed us to understand this research from different perspectives.

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<b>Student Questionnaire</b>	<b>Didactic Portfolio</b>	Through the application of the questionnaire, it was possible to identify that students perceive the integration of ICT in a positive way, it was also identified that vocabulary and grammar are the activities that they would like to study with technology and also online games and interactive activities.
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