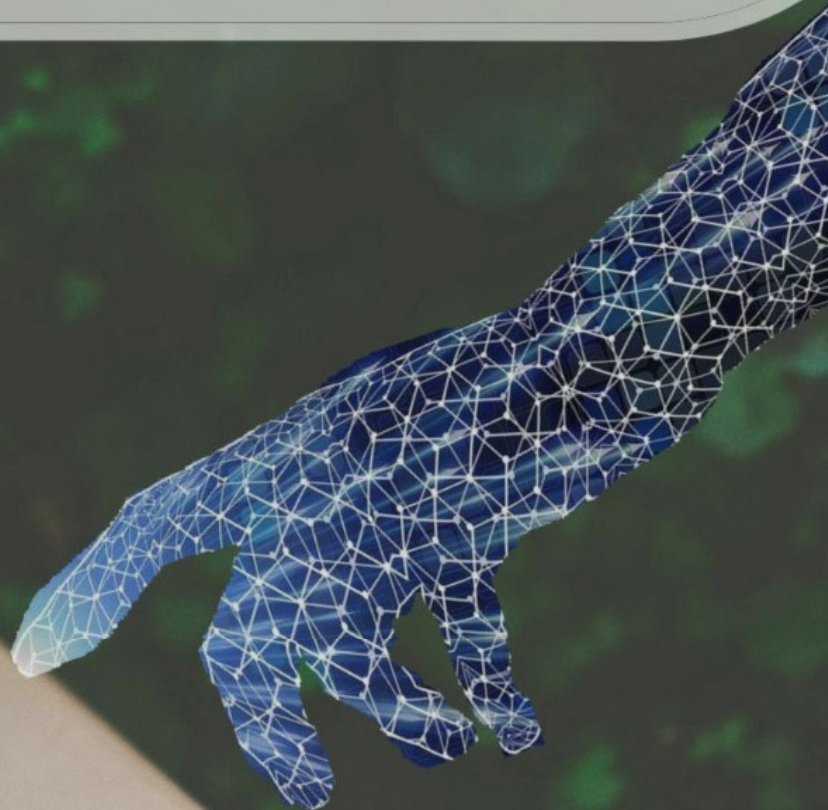


# **TRANSFORMING EDUCATION: INNOVATION FOR THE 21ST CENTURY**



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ISBN: 978-84-1070-993-5

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## Prologue

The most fundamental understanding of education tells us that educators are constantly innovating in their pedagogical practice, whether spontaneously or intentionally, empirically or scientifically, achieving either successful outcomes or encountering frustrations. Why does this happen? Is the teaching profession inherently volatile? No, it is due to the raw materials educators work with—the students—and the context in which they operate.

The rapid changes in society and technology demand intentional improvements that lead to comprehensive transformations in the teaching-learning process. Education must be transformed, but how can we achieve this transformation in the 21st century?

One of the most recurrent answers is the need to integrate technologies into the process. Indeed, this is one of the aspects revolutionizing education. Technology has served as a didactic support in classrooms, but do we always succeed in improving the process? Do digital content and resources have the intended impact? Is technology being used appropriately? Are its potentials and threats being studied? Is the transformation itself valid?

The challenge of integrating technology into education can lead us toward transformation and innovation, but every decision in this regard must be carefully reconsidered. Moreover, other elements, less evident than technology but closely related, must also be examined.

Governments are instituting new educational policies, such as those promoting inclusion and equitable access to education, which require a renewed perspective. Addressing diversity demands a particularly complex approach, especially when integrating technology. In each classroom, do we know whether the diverse student population has access to technological tools and knows how to use them for learning? Is personalized attention necessary? What educational and instructional value does creating resources such as learning landscapes in digital humanities hold for each student?

These questions lead to further inquiries: What competencies must educators and students develop to transform 21st-century education? As education transforms, it impacts the participants in the process, influencing their values, attitudes, and convictions. The book presented today offers a diverse perspective that prompts reflection on these issues related to education and the digital age.

This work, directed by Dr. Cristóbal Torres Fernández and coordinated by a multidisciplinary team of experts, explores and presents findings on educational innovations, addressing digital competencies, digital humanities, and educational technologies from both practical and theoretical perspectives.

The volume is structured into eleven chapters that delve into themes related to educational transformation. It showcases results from the Digitateen project, which focuses on analyzing the digital competencies of students in Seville and presents proposals such as learning landscapes. Applications of interactive methods are also among the topics covered in its sections.

Special attention is given to the ethical and pedagogical challenges posed by the use of artificial intelligence in the teaching-learning process. Additionally, studies are analyzed on predictive factors influencing educators' use of educational technologies. Significant proposals, such as tools for personalized teaching through intelligent environments, are also addressed with care in this work.

This book not only provides tools and educational strategies but also invites reflection on the necessary balance between technical skills and pedagogical ethics, and the critical and conscious participation amid a technological revolution. It is a valuable resource for every educator.

Regarding the integration of technologies, much remains to be studied and transformed through innovation. This volume serves as a guide for educators' methodological approaches in their interactions with students, offering results that can be multiplied in education with a degree of creativity.

As a reader, I can confidently state that *Transforming Education: Innovation for the 21<sup>st</sup> Century* provides a broad perspective on the ongoing transformations in education, leaving us speculating about the skills and competencies that have yet to be conceived or designed for teaching and learning.

It is an honor for me to reflect, at the invitation of Dr. Cristóbal Torres—whom I know thanks to the marvels of technology—on the importance and validity of the volume I present to you. Educational transformation and innovation in the 21<sup>st</sup> century are concerns for every educator, and as Professor Calviño said, it is “worthwhile” to immerse ourselves in the reading, evaluation, and implementation of the experiences showcased in this book, contributing to the excellence of the educational process.

Thank you very much,

**Norma González Ruda**

Centro de Referencia para la Educación de Avanzada. Universidad Tecnológica de La Habana José Antonio Echeverría, CUJAE

# Chapter 1. Digitateen Project: study about digital competencies of 4th-Year ESO and 1st-Year Baccalaureate Students at IES "Velázquez" (Seville) and IES "V Centenario" (Seville)

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## I. Introduction

Digital competencies have become one of the most influential topics in recent years, leading to a growing number of studies analyzing the use of electronic tools and devices. A person is considered digitally competent when they possess knowledge or skills related to a digital tool, such as the correct use of computers.

Currently, there are several advantages and disadvantages that define their use. Below are some positive factors associated with digital competencies: (I) they facilitate tasks by speeding up processes, (II) provide entertainment, as digital competencies are enjoyable during leisure time, and (III) enhance academic performance efficiency, among others.

On the other hand, disadvantages are also present in digital competencies. Firstly, they can lead to addiction to ICT (Information and Communication Technologies). Moreover, they can cause social isolation, as they may reduce an individual's social interactions. Another major disadvantage is the limitation of skills without the necessary tools to be digitally competent.

Our working group decided to choose the topic of digital competencies for various reasons. On the one hand, it is considered of great interest due to its relevance in fostering the social skills of every individual in society. Another reason for selecting this topic is that today, an increasing number of adolescents and young people use applications that require digital competencies almost daily. These applications include instant messaging tools such as WhatsApp, Telegram, Facebook, and Instagram, which are generating profound changes and new forms of communication among adolescents (Rodríguez et al., 2019).

Therefore, this study focuses on analyzing the digital competencies of adolescent students in their 4th year of compulsory secondary education (ESO) and the 1st year of the Baccalaureate, enrolled at "Velázquez" and "V Centenario" secondary schools located in the city of Seville, Andalusia.

This study is important because it aims to reveal the level of digital competencies among these students and, in cases of low performance, improve these competencies through various actions related to digital tools and collaborative learning and working methods.

Regarding the structure of this document, it begins with a literature review of the most important concepts related to digital competencies. Next, the methodology of the study is outlined. Subsequently, the results obtained from the survey administered to the participants are presented. Finally, the conclusions and discussion of the study are detailed.

Consequently, this study focuses on analyzing the digital competencies of adolescent students in the 4th year of Compulsory Secondary Education (ESO) and the 1st year of Baccalaureate at two public high schools in Seville: IES "Velázquez" and IES "V Centenario." It addresses both the positive and negative aspects related to the use of these competencies, with the primary objective of evaluating their level and, if found to be low, implementing improvements based on five predefined categories: knowledge and skills in the use of digital devices, knowledge or skills in the use of computers, knowledge or skills in the use of mobile phones, knowledge or skills in the use of photo/video cameras, and competencies in the knowledge and use of ICT for social communication and collaborative learning.

The results reveal varied levels of competence in the use of digital devices, with a particular focus on communication and collaborative learning. Advantages such as academic efficiency and entertainment are highlighted, while risks like addiction and social isolation are also noted. The study proposes actions to enhance students' digital competencies, emphasizing tools and strategies for collaborative learning.

These findings underscore the need to promote a critical, safe, and responsible use of technology within the educational context. By addressing both strengths and challenges, the study provides valuable insights for fostering effective and balanced digital competency development in secondary education.

## **II. Theoretical Framework**

This section defines the main concepts of our study. One of them is digital competence, which, according to Marcano (2010), is a set of knowledge, skills, competencies, and attitudes that serve to achieve goals efficiently and effectively using digital devices and tools in various situations and contexts. It is essential for students and teachers to master the different capabilities and areas of digital competencies to apply them effectively in their work.

Rangel and Peñalosa (2013, cited in Levano et al., 2019) define digital literacy as cognitive processes that enable individuals to acquire certain competencies for using technology and managing information in their areas of knowledge.

Lordache et al. (2017, cited in Levano et al., 2019, p. 572) propose that digital competencies "should be regarded as the most practical and measurable outcomes of training processes related to the novel concept of digital literacy."

Similarly, authors such as Marza and Cruz (2018, cited in Levano et al., 2019, p. 572) consider digital competencies to be "highly useful tools that allow for the mobilization of attitudes, knowledge, and processes through which learners acquire skills to facilitate knowledge transfer and foster innovation."

The European Community also defines digital competencies as "the correct, precise, and accurate use of information-related technologies for activities linked to work, leisure, and communication" (MEC, 2017, cited in Salazar, 2022, p. 96).

In Spanish legislation, digital competence is addressed when establishing curricula for Early Childhood, Primary, Secondary, and Baccalaureate education. According to Organic Law 3/2020, of December 29, which amends Organic Law 2/2006, of May 3, on Education,

secondary school students must take a subject called "Technology and Digitalization" during one of the years from first to third of secondary education.

Digital competence is conceived as encompassing the safe, healthy, sustainable, critical, and responsible use of digital technologies for learning, work, and participation in society, as well as interaction with these technologies. It includes information and data literacy, communication and collaboration, media education, digital content creation (including programming), security (covering digital well-being and cybersecurity-related skills), issues related to digital citizenship, privacy, intellectual property, problem-solving, and computational and critical thinking.

Additionally, Royal Decree 217/2022, of March 29, which establishes the organization and minimum teaching requirements for Compulsory Secondary Education, defines five operational descriptors of digital competence that students should master upon completing basic education:

- **1:** Conducts online searches based on criteria of validity, quality, timeliness, and reliability, critically selecting results and archiving them to retrieve, reference, and reuse them while respecting intellectual property.
- **2:** Manages and uses their personal digital learning environment to build knowledge and create digital content through information processing strategies and the use of different digital tools, selecting and configuring the most suitable ones for the task and their lifelong learning needs.
- **3:** Communicates, participates, collaborates, and interacts by sharing content, data, and information through virtual tools or platforms, responsibly managing their actions, presence, and visibility online to exercise active, civic, and reflective digital citizenship.
- **4:** Identifies risks and adopts preventive measures when using digital technologies to protect devices, personal data, health, and the environment, raising awareness of the importance and necessity of making critical, legal, safe, healthy, and sustainable use of these technologies.
- **5:** Develops simple software applications and creative and sustainable technological solutions to address specific problems or respond to proposed challenges, showing interest and curiosity about the evolution of digital technologies and their sustainable development and ethical use.

As observed, these descriptors highlight the need for students to acquire skills and knowledge related to the responsible, critical, and efficient use of digital technologies.

To conclude this theoretical framework, it is worth noting the numerous studies conducted on digital competencies. Authors like Blanco (2018) emphasize the importance of digital competence training in society and education, particularly for teachers, to meet the technological demands of education.

Calderón and Carrera (2020) adapted the areas that compose the Common Framework for Digital Competence of Educators (CFDCE) to the field of Music education. Palacios-Rodríguez

and Martín-Párraga (2021) define digital competencies as the ability to use technology to live, work, and learn in today's knowledge society.

Carrera and Castro (2022) examined the impact of information and communication technologies (ICT) on basic education during the pandemic, highlighting the need to strengthen digital teaching competencies (DTC) to improve teaching in both virtual and in-person modalities. Their systematic literature review from 2018 to 2022 covered interventions and proposals for DTC development in basic education. They analyzed various approaches, such as ICT training for teachers, classroom experiences with different applications, and methodologies like MOOCs, educational robotics, augmented reality, and flipped learning. The evaluated proposals showed improvements in DTC, mostly measured using the Common Framework for Digital Competence of Educators (CFDCE).

Finally, Pruneda et al. (2023) address the importance of digital competencies in education, focusing specifically on university faculty. They rely on the European Framework for Digital Competence (DigComp) and the European Framework for Digital Competence of Educators (DigCompEdu) to provide a solid framework for evaluating and certifying digital competencies. They emphasize the continuous evolution of these frameworks and how educational institutions can use them to develop evaluation and certification criteria for digital competencies.

### III. Objectives and Hypotheses

This section outlines the general and specific objectives of the research, as well as the hypotheses formulated to achieve them. A general objective and several specific objectives are established, along with the hypotheses to be tested.

The **general objective** is "to analyze certain technological habits and digital competencies of adolescent students in the 4th year of Compulsory Secondary Education (ESO) and the 1st year of Baccalaureate at the secondary schools 'Velázquez' and 'V Centenario.'"

The **specific objectives** are as follows:

- Investigate whether students use technologies more to talk with friends than to complete school assignments.
- Identify the amount of time students spend daily browsing the internet.
- Analyze the level of competence in "Knowledge and skills in the use of Digital Devices" among the study participants.
- Examine the level of competence students have in "Knowledge or skills in the use of computers."
- Determine the level of competence students possess in the use of mobile phones.
- Explore students' knowledge or skills in using photo/video cameras.
- Assess the level of competence in the knowledge and use of ICT for Social Communication and collaborative learning among the study participants.

The **hypotheses** for the study are as follows:

- **H<sub>1</sub>**: Students use technologies more to talk with friends than to complete school assignments.
- **H<sub>2</sub>**: Participants in the study spend between 4 and 9 hours a day browsing the internet.
- **H<sub>3</sub>**: Students have an advanced level of competence in "Knowledge and skills in the use of Digital Devices."
- **H<sub>4</sub>**: Students have an advanced level of "Knowledge or skills in the use of computers."
- **H<sub>5</sub>**: Students have an advanced level of "Knowledge or skills in the use of mobile phones."
- **H<sub>6</sub>**: Students have an intermediate level of "Knowledge or skills in the use of photo/video cameras."
- **H<sub>7</sub>**: Students have an intermediate level of "Competencies in the knowledge and use of ICT for Social Communication and collaborative learning."

#### **IV. Methodology**

This section presents the study's methodology. It includes the determination of research variables, the design of the study structure, the data collection instrument, and the analysis of the results, culminating in hypothesis testing.

##### **4.1. Research Variables**

The variables considered in this study are as follows:

- **Level of digital competence**: This variable evaluates whether students at different educational levels (Compulsory Secondary Education and Baccalaureate) show differences in their digital competence levels.
- **Time spent browsing the internet**: This variable reflects the time participants dedicate to internet browsing and is used to establish relationships with their digital competence level.
- **Competence in the use of digital devices**: This variable assesses students' competence levels in using digital devices, such as computers, mobile phones, and photo/video cameras.
- **Competence in the use of ICT for Social Communication and collaborative learning**: This variable analyzes students' competence levels in using Information and Communication Technologies (ICT) for social communication and collaborative learning.

## 4.2. Methodological Design and Research Structure

The research methodology selected for this study follows a quantitative, descriptive approach in its "survey" modality. Descriptive methodology focuses on identifying educational phenomena and "goes beyond merely collecting data, aiming to answer questions about the present state of any educational situation with implications that extend beyond the boundaries set by the studied elements themselves" (Bisquerra, 2016, pp. 197-198).

The research structure followed these phases:

- **Phase 1. Formulation of objectives and hypotheses:** The basic concepts of the study were explained, and the general and specific objectives, as well as the hypotheses to be tested, were formulated.
- **Phase 2. Research methodology:** A quantitative, descriptive "survey" approach was determined as the research method.
- **Phase 3. Selection of the data collection instrument:** An existing instrument was adapted to the characteristics of the study and its participants; validation was not necessary as the instrument was already designed.
- **Phase 4. Selection of the sample of participants:** Participants were selected using a non-probability convenience sampling method, targeting accessible individuals with relevant characteristics for the study.
- **Phase 5. Questionnaire administration:** Data collection was conducted through a Google Forms questionnaire, which participants completed online.
- **Phase 6. Data analysis and interpretation of results:** All collected data were processed and analyzed using statistical tools such as Google Forms and Microsoft Excel.
- **Phase 7. Conclusions:** The study's conclusions were established by testing the hypotheses and evaluating whether the study objectives were achieved.

## 4.3. Selection of the Study Sample

The study population consists of 160 students in the 4th year of Compulsory Secondary Education (ESO) in the scientific-technological area and the 1st year of Baccalaureate at the secondary schools "Velázquez" and "V Centenario," located in Seville, Andalusia. The sample was selected using a non-probability convenience sampling method, referring to the selection of accessible subjects or those representing specific relevant characteristics for the study (McMillan and Schumacher, 2005).

The study sample included 54 participants aged between less than 15 and 17 years. Of these, 59.3% identified as female (32 participants), 38.9% as male (21 participants), and 1.9% as other (1 participant).

#### 4.4. Data Collection Instrument

The data collection instrument used in this research was a Likert scale, which consists of "a set of items presented as statements or judgments to which participants are asked to react. Each statement is presented, and the participant is asked to express their reaction by selecting one of the five points or categories on the scale. Each point is assigned a numerical value, resulting in a total score based on all responses" (Hernández et al., 2006, p. 341).

The questionnaire used was an adaptation of the "Digital Competency Assessment Questionnaire" designed by Lorenzo (2017) and consists of seven categories:

- **Personal Data** (items 1 to 4)
- **Technological Media and Habits** (items 4 to 10)
- **Block 1:** Knowledge and Skills in the Use of Digital Devices
- **Block 2:** Knowledge or Skills in the Use of Computers
- **Block 3:** Knowledge or Skills in the Use of Mobile Phones
- **Block 4:** Knowledge or Skills in the Use of Photo/Video Cameras
- **Block 5:** Competencies in Knowledge and Use of ICT for Social Communication and Collaborative Learning

#### 4.5. Data Analysis and Results

This section details the processing of data obtained from the questionnaires administered to the participants. A database was created to include all items, and the information was coded for statistical analysis. The data analysis was conducted using Microsoft Excel for generating tables and statistical calculations, as well as Google Forms for extracting graphs directly from the results of the data collection instrument. After generating the tables and graphs, comments were added to describe the main findings, which allowed for the extraction of the study's most significant conclusions. Additionally, the overall level of digital competence for each category and the average global score of the participants were calculated.

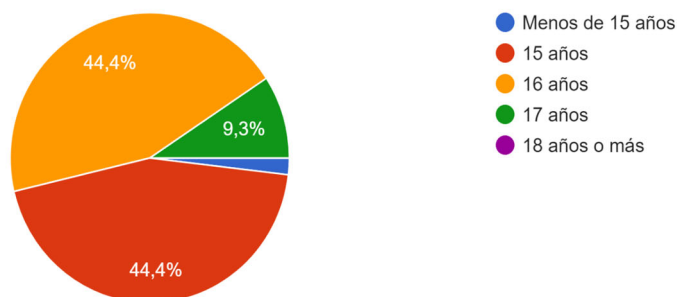
For this purpose, the following scoring system was applied to the students' responses for each item: 0 points if the response was "Not competent," corresponding to a "no competence" level; 1 point if the response was "Slightly competent," corresponding to a "basic level"; 2 points if the response was "Fairly competent," corresponding to an "intermediate level"; and 3 points if the response was "Very competent," corresponding to an "advanced level." Responses marked as "Don't know / No answer" were excluded from the calculation of these competency levels.

#### 4.5.1. Results of the "Personal Data" Category

This section discusses the main results of the "Personal Data" category. As shown in Figure 1, which refers to the age of the participants, 1.9% (1 participant) is under 15 years old; 44.4% (24 participants) are 15 years old; 44.4% (24 participants) are 16 years old; and 9.3% (5 participants) are 17 years old. None of the participants in the study are 18 years old or older.

**Figure 1.**  
 Age of the participants in the study.

2. Edad  
 54 respuestas

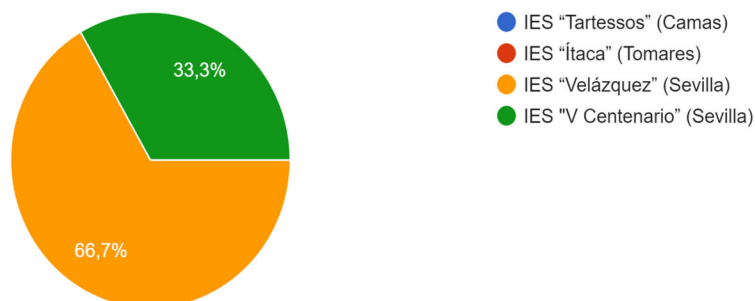


Source: own elaboration.

Regarding Figure 2, which refers to the educational institution of the participating students, we can observe that 33.3% (18 students) of the survey participants belong to "IES V Centenario," while the remaining 66.7% (36 students) are from "IES Velázquez."

**Figure 2.**  
 Educational institution of the participants in the study.

3. Centro educativo al que perteneces  
 54 respuestas



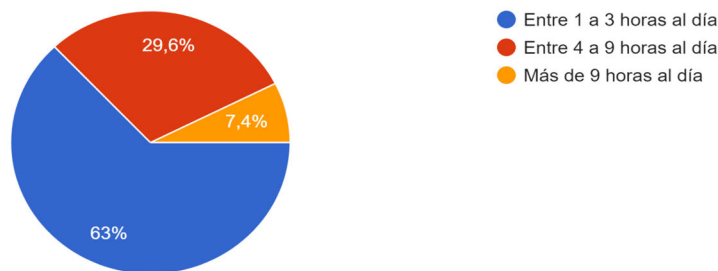
Source: own elaboration.

#### 4.5.2. Results of the "Technological Media and Habits" Category

In the "Technological Media and Habits" category, the results of item 8, "How much time do you spend browsing the internet?" stand out. It was observed that 63% (34 students) reported spending 1 to 3 hours a day online, while 29.6% (16 students) spend between 4 and 9 hours daily, and 7.4% (4 students) spend more than 9 hours a day on the internet.

**Figure 3.**  
*Time students spend online daily.*

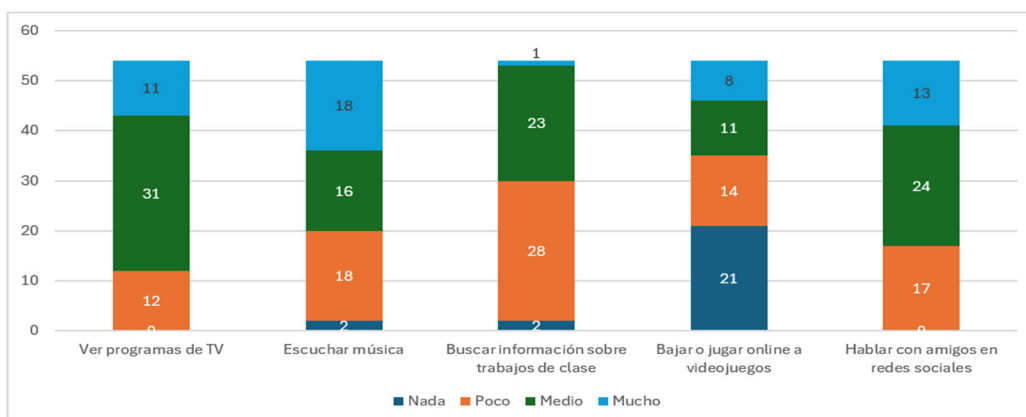
8. ¿Cuánto tiempo dedicas a navegar por Internet?  
 54 respuestas



Source: own elaboration.

When considering some of the activities analyzed in item 9, "Could you tell me how much time you spend on the following actions online at home?" it is evident that students spend a significant amount of time listening to music (18 students). In contrast, a large group of students (21) reported not spending any time downloading or playing online video games (see Figure 4).

**Figure 4.**  
*Time students dedicate to online activities.*



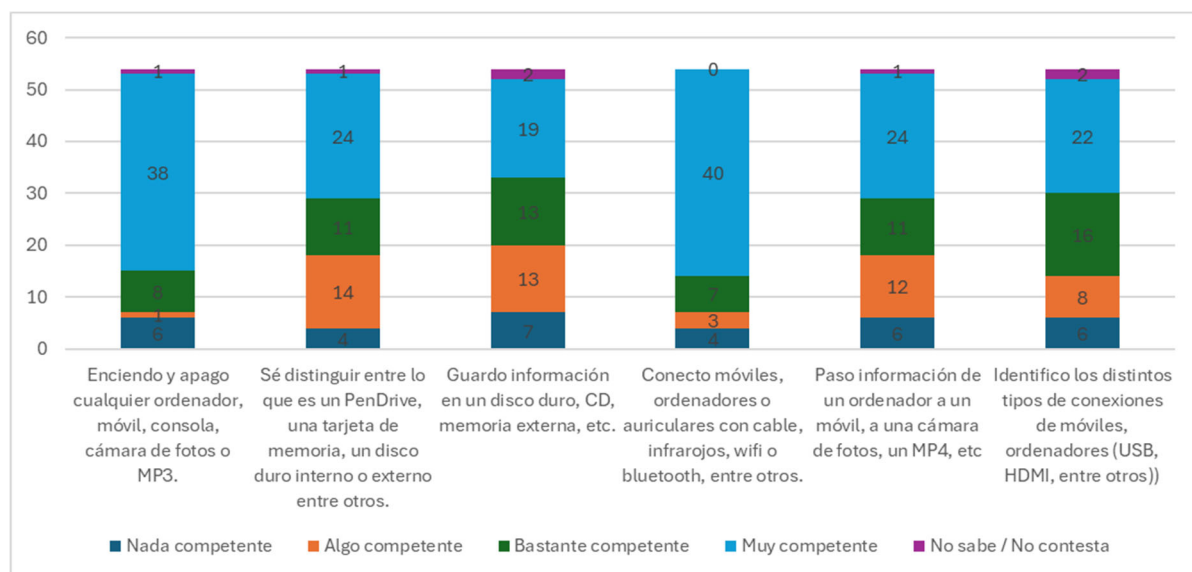
Source: own elaboration.

Another result highlighted in Figure 4 is that many students spend little time searching for information to complete school assignments (28 students). Additionally, 31 students reported dedicating a moderate amount of time (1-3 hours) to watching online television programs.

### 4.5.3. Results of the "Knowledge and Skills in the Use of Digital Devices" Category

The results of this category indicate that students demonstrate the highest level of digital competence in the actions "I turn on and off any computer, mobile phone, console, camera, or MP3" (38 participants) and "I connect mobile phones, computers, or headphones via cable, infrared, Wi-Fi, or Bluetooth, among others" (40 participants). For the remaining items, the results are relatively similar. The least familiar action for participants is "I save information on a hard drive, CD, external memory, etc." (7 participants) (see Figure 5).

**Figure 5.**  
 Results of item 11: "BLOCK 1: Knowledge and Skills in the Use of Digital Devices."



Source: own elaboration.

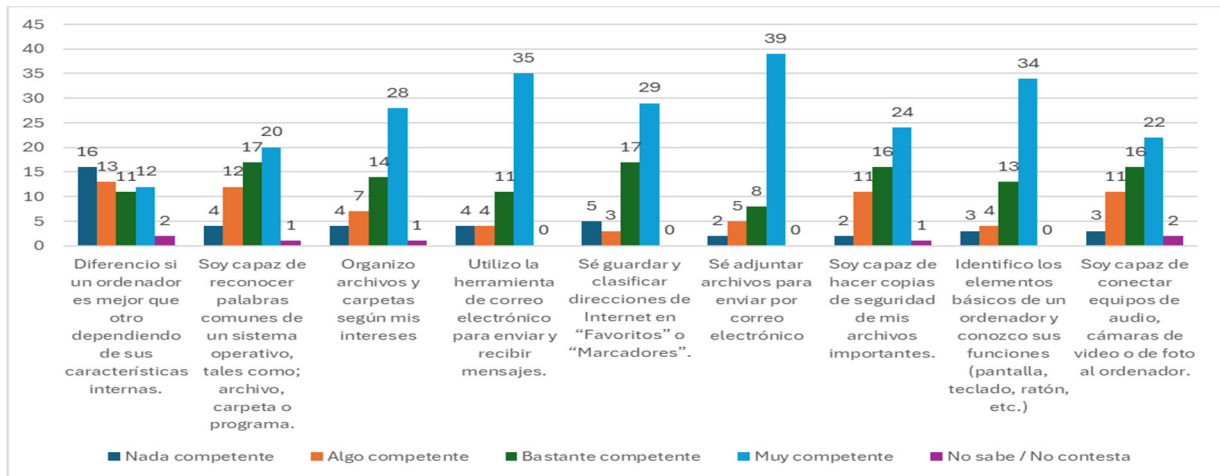
Overall, the results show that the group possesses an "intermediate level" of digital competencies in this category, with an average score of 2.15 out of 3.00.

### 4.5.4. Results of the "Knowledge or Skills in the Use of Computers" Category

The results of this category indicate that students demonstrate the highest level of digital competence in the items "I know how to attach files to send via email" (39 participants), "I use email tools to send and receive messages" (35 participants), and "I identify the basic components of a computer and know their functions (screen, keyboard, mouse, etc.)" (34 participants).

It is noteworthy that 16 participants, representing 29.6% of the total sample, have no competence in the item "I can determine whether one computer is better than another based on their internal characteristics" (see Figure 6).

**Figure 6.**  
*Results of item 12: "BLOCK 2: Knowledge or Skills in the Use of Computers."*



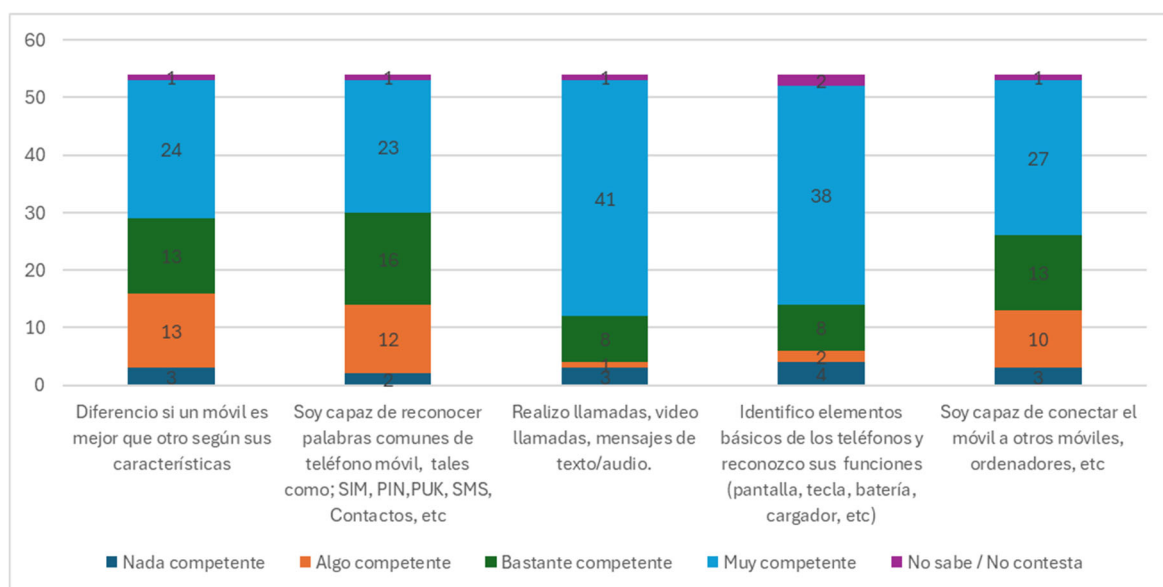
Source: own elaboration.

Overall, the results show that the group possesses an "intermediate level" of digital competencies in this category, with an average score of 2.17 out of 3.00.

#### 4.5.5. Results of the "Knowledge or Skills in the Use of Mobile Phones" Category

The results of this category show that students demonstrate the highest level of digital competence in the items "I make calls, video calls, audio/text messages" (41 participants) and "I identify the basic components of mobile phones and recognize their functions (screen, keyboard, battery, charger, etc.)" (38 participants). For the remaining items, the results are relatively similar (see Figure 7).

**Figure 7.**  
*Results of item 13: "BLOCK 3: Knowledge or Skills in the Use of Mobile Phones."*



Source: own elaboration.

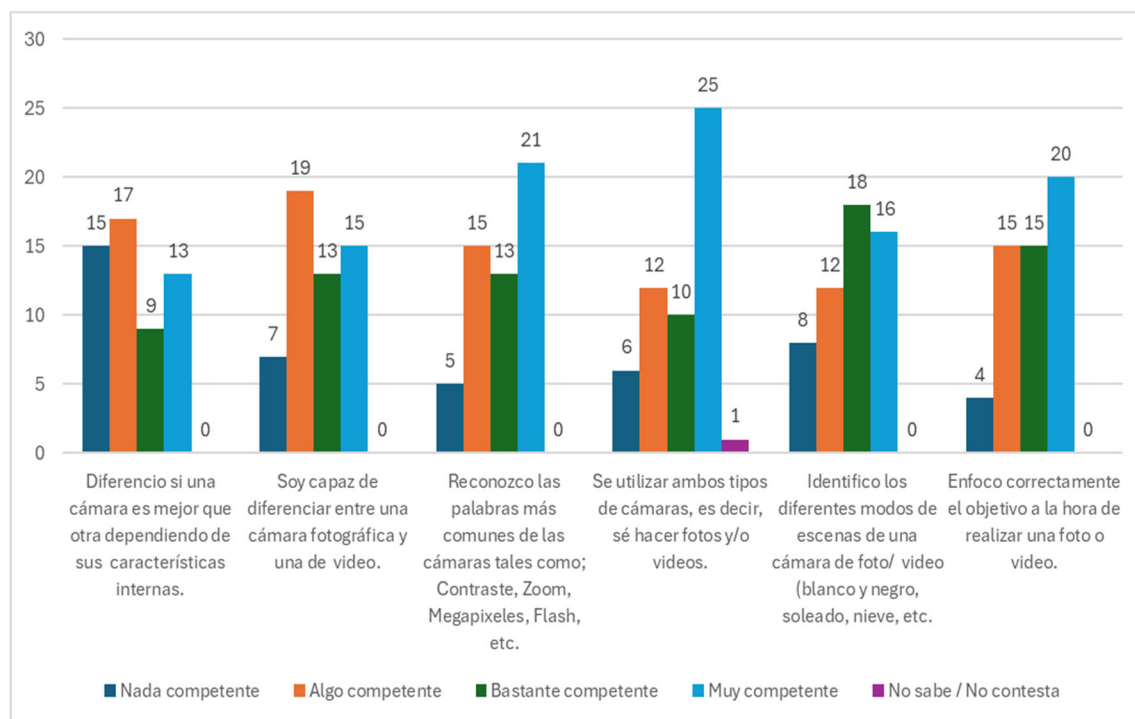
Overall, the results indicate that the group possesses an "intermediate level" of digital competence in this category, with an average score of 2.32 out of 3.00.

#### 4.5.6. Results of the "Knowledge or Skills in the Use of Photo/Video Cameras" Category

This category has reported the most basic and intermediate levels of digital competence. The highest level of competence is observed in the item "I know how to use both types of cameras, i.e., I know how to take photos and/or videos" (25 participants), while the results for other items are relatively similar.

It is worth noting that 27.8% of participants (15 individuals) reported having no competence in the item "I can identify whether one camera is better than another based on its internal characteristics" (see Figure 8).

**Figure 8.**  
*Results of item 14: "BLOCK 4: Knowledge or Skills in the Use of Photo/Video Cameras."*



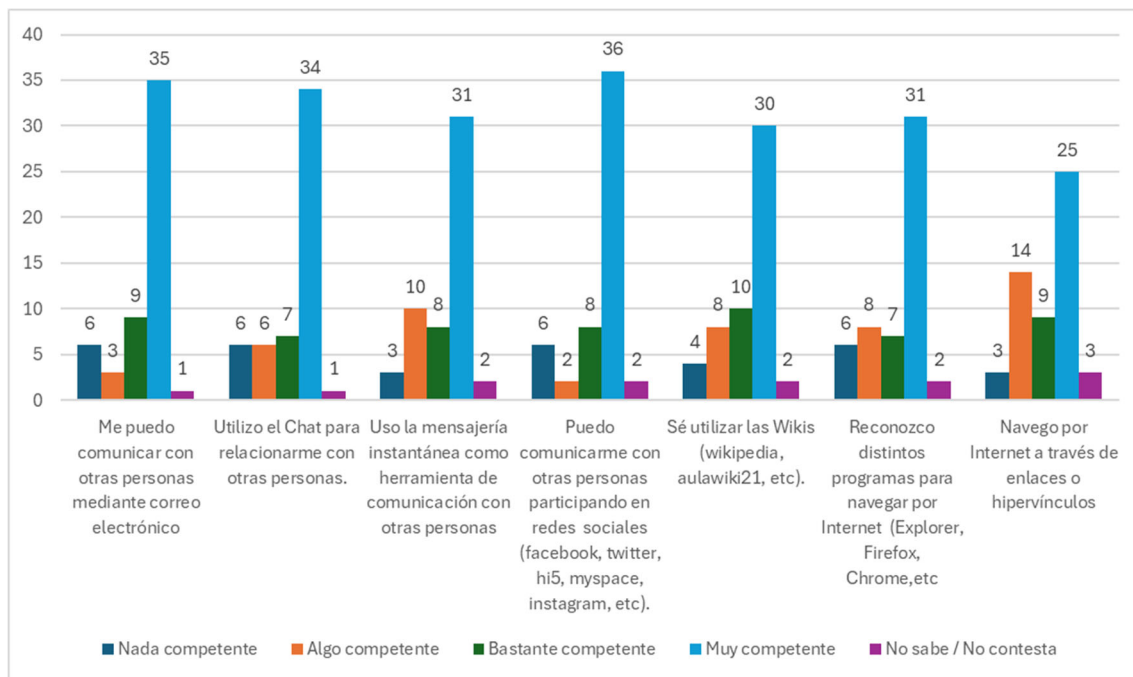
Source: own elaboration.

Overall, the results indicate that the group possesses a "basic level" of digital competence in this category, with an average score of 1.78 out of 3.00.

#### 4.5.7. Results of the "Competencies in Knowledge and Use of ICT for Social Communication and Collaborative Learning" Category

The results of this category show high average scores, indicating a high level of digital competence among students. Participants reported the highest competence in the items "I can communicate with others through social networks (Facebook, Twitter, hi5, Myspace, Instagram, etc.)" (36 participants) and "I can communicate with others via email" (35 participants), while the remaining items have very similar scores.

**Figure 9.**  
*Results of item 15: "BLOCK 5: Competencies in Knowledge and Use of ICT for Social Communication and Collaborative Learning."*



Source: own elaboration.

Overall, the results indicate that the group possesses an "intermediate level" of digital competence in this category, with an average score of 2.28 out of 3.00.

In terms of the overall level of digital competence of the study participants, the data show that the group achieved an average score of 2.14 out of 3.00, which corresponds to an "intermediate" level of digital competence. This is consistent with the results reflected in the previous categories.

## V. Conclusions

The growing tendency of adolescents to spend numerous hours online represents a significant phenomenon in the contemporary educational landscape. This behavior, driven by various factors such as easy and rapid access to digital devices and the omnipresence of online connectivity, poses important challenges for educational systems worldwide.

The digital era has brought almost unlimited access to information and a wide range of educational and entertainment opportunities for adolescents. However, unrestricted access also exposes them to potential risks to their physical, mental, and emotional well-being. From excessive screen time to exposure to inappropriate or harmful content, adolescents face a series of challenges while navigating the online world.

In this context, education must respond proactively and effectively to this reality. Educators must develop innovative pedagogical strategies that not only acknowledge and understand the complexities of the digital age but also promote healthy, responsible, and critical use of technology among adolescents.

It is essential for educational programs to incorporate elements that teach adolescents to critically and reflectively engage with their online content consumption. This includes equipping them with tools to identify truthful and reliable information while recognizing and resisting misinformation and potentially harmful content.

Additionally, education should foster the development of digital skills and media literacy among adolescents. This involves teaching them to navigate the digital world safely and ethically, as well as effectively utilizing information and communication technologies (ICT) as tools for learning, creation, and collaboration.

Addressing these challenges, however, requires a comprehensive and collaborative approach. Families, educators, educational institutions, and society as a whole must come together to ensure that adolescents can maximize the benefits of technology while being safeguarded from its potential risks. This involves not only providing guidance and support to adolescents but also establishing policies and practices that promote a safe and enriching online environments for all.

Referring back to the study results, it was confirmed that students have advanced skills in the use of digital devices, computers, and mobile phones. However, areas for improvement were identified in the use of photo/video cameras and competencies related to ICT for social communication and collaborative learning.

Students also tend to use educational technologies for various reasons, with the following being the most prominent:

- **Access to information:** Technologies enable access to a wide range of online educational resources, such as e-books, academic articles, educational videos, interactive simulations, and more, enriching their learning with updated and diverse information.
- **Communication and collaboration:** Through tools like email, instant messaging platforms, online forums, and educational social networks, students can communicate with peers, teachers, and experts in different fields, facilitating collaboration in projects, academic discussions, and idea exchange.
- **Organization and time management:** Educational technologies offer tools for organizing academic work, such as digital calendars, task management apps, and online learning platforms, which help students plan their studies, set goals, and manage their time efficiently.
- **Personalized learning:** By using adaptive learning platforms, personalized educational apps, and interactive resources, students can learn at their own pace, focusing on their individual needs and learning styles, which promotes a more meaningful and effective educational experience.

In conclusion, the widespread use of educational technologies among adolescent students has transformed the way they learn and engage with knowledge. From accessing a vast array of educational resources to effectively communicating and collaborating with peers and experts, these tools offer numerous benefits for students' academic and personal development. Additionally, educational technologies provide tools for better time management and personalized learning, contributing to a more tailored educational experience that meets each student's individual needs. In this sense, it is crucial for educational systems to continue leveraging the potential of technologies to improve education quality and prepare students for the challenges of the modern world.

## VI. Acknowledgements

This chapter is the scientific outcome of the research project "*DigitaTeen: Competencies for the Digital Future*," presented in the *Jóvenes con Investigadores* call. The project has been supported by the **Scientific and Cultural Outreach Office (Secretariado de Divulgación Científica y Cultural)** of the **University of Seville**. We extend our gratitude to this institution for fostering initiatives that promote research and innovation among young researchers. This support has been instrumental in enabling the development and dissemination of this work.

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## **Chapter 2. Integrating Digital Humanities through “Learning Landscapes” for the Development of Digital Competence in Initial Teacher Training for Secondary Education**

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### **I. Introduction**

Digital technology has undergone significant evolution across all areas of life, particularly in educational and professional contexts. This paradigm shift not only requires a deep understanding of digital tools but also emphasizes the need for their effective integration into teaching and learning processes (Cabero & Palacios, 2020; INTEF, 2020; Redecker, 2021). In this context, Digital Humanities have redefined research and teaching practices within traditional humanities disciplines, aiming to equip future educators with the skills and competencies necessary to meet the demands of an increasingly digitized world (Marimon-Martí et al., 2022; Pallarès-Piquer et al., 2021).

Simultaneously, learning landscapes—understood as personalized and flexible virtual learning environments (Gil-Fernández et al., 2023)—offer a unique opportunity to foster exploration, experimentation, and critical reflection on the use of digital technology in the classroom. This chapter explores how learning landscapes can serve as a framework for integrating Digital Humanities into the initial teacher training for secondary education, with a particular focus on developing their Digital Competence.

Through a theoretical analysis and practical examples, we will examine how learning landscapes can facilitate the development of Digital Competence and reflect on the pedagogical and curricular implications of this integration. Ultimately, the chapter aims to contribute to the growing body of research on the integration of Digital Humanities in initial teacher training, offering practical recommendations to promote digitally competent education and foster active student participation in secondary education.

### **II. Digital Competence and Digital Humanities: New Educational Challenges**

Since its initial conceptualization in the 1990s and its formalization through frameworks such as DigComp, proposed by the European Commission, digital competence has been recognized as essential for full and effective participation in contemporary society. The works of authors such as Gilster (1997) and Prensky (2001), alongside initiatives by UNESCO (2008) and the European Commission (2013), have played a decisive role in the development and evolution of this concept. These efforts have responded to the growing integration of digital technologies in all aspects of life and the need to develop specific skills for their effective use. Consequently, the evolution of this concept reflects a shift from a focus on basic digital literacy

(Gilster, 1997) toward a more comprehensive understanding of the skills required for full participation in the digital society. This need is particularly critical in educational and professional contexts to enhance teaching effectiveness and optimize learning outcomes (Marimon-Martí et al., 2022).

In the Spanish educational context, digital competence is highly relevant for the holistic development of students navigating a digitized world (Colás-Bravo et al., 2019). Authors such as Castellví et al. (2020) and Escribano et al. (2023) highlight the importance of critical thinking in the digital age and argue that critical digital literacy is essential for shaping informed and responsible citizens. Cabero (2006) and Leiva (2015) emphasize the need to develop digital citizenship, which includes skills such as online ethics, responsible participation in digital communities, and respect for privacy, all of which are associated with the concept of digital cultural competence, or “digiculturality” (Iglesias et al., 2019). These transversal competencies, applicable across various fields of knowledge and life, not only enhance digital competence but also contribute to the holistic development of students, preparing them to participate actively and critically as citizens (Leiva et al., 2016).

Thus, digital competence is essential in education to equip students for a digitalized world, fostering their holistic development and ability to engage actively in society (Gil-Fernández & Calderón-Garrido, 2023). Integrating critical, ethical, and privacy-related skills alongside critical digital literacy strengthens their formation as responsible and informed citizens.

Digital Humanities further enrich teaching and research by offering new perspectives on cultural and social phenomena, contributing to a deeper understanding of the digital environment. This field combines the study of traditional disciplines such as history, literature, and philosophy with digital tools and methods (Reichert, 2014; Vinck, 2018). It encompasses the use of software to analyze large historical or literary corpora, the creation of digital archives accessible from anywhere, and the use of digital tools to create interactive maps that facilitate the comprehension of data and content.

In summary, Digital Humanities not only enable new forms of research and teaching but also open the door to a deeper understanding of cultural and social phenomena. By integrating these approaches, future secondary education teachers can develop a profound understanding of how to leverage digital tools to enhance teaching and learning. This integration allows them to experience firsthand the benefits of a dynamic and flexible learning environment, where they can apply their knowledge to practical situations and solve complex problems. Ultimately, this combination strengthens their digital competence and prepares them to face the challenges of education in the digital age.

### **III. Learning Landscapes as Smart Learning Environments**

In the current educational landscape, the incorporation of concepts such as Big Data and Artificial Intelligence fosters the development of initiatives related to Smart Learning Environments (SLE). SLEs are defined as environments where technology enables the creation of accessible learning experiences for everyone, anytime and anywhere (Gambo & Shakir, 2019; Darder-Mesquida et al., 2023).

Learning landscapes are digital pathways that guide students through their learning process by creating “visual scenarios” designed to provide personalized and meaningful learning experiences. These landscapes are intricately linked to smart learning environments, as they

are designed to offer personalized attention to students, adapting to their learning styles, needs, interests, and motivations (Tomé et al., 2021). They integrate diverse resources and activities, allowing students to explore and develop their competencies autonomously while collaborating with peers.

A Learning Landscape is a learning experience that integrates curricular content with challenges, activities, badges, and tasks, creating a comprehensive learning framework where students can choose their own path and customize it based on their skills, abilities, preferences, interests, and motivations (Tomé et al., 2021, p. 313).

In the context of initial teacher training for secondary education, learning landscapes provide a flexible framework that can swiftly adapt to technological and methodological advancements in Digital Humanities. They integrate digital tools, resources, and platforms that facilitate the exploration and understanding of humanities disciplines using technology (Jukes et al., 2023). These landscapes may include online collaboration platforms, access to digital databases, or specialized software for cultural data analysis.

This integration not only supports the research and preservation of cultural heritage but also enables a deeper and more accessible analysis of historical texts and documents. For instance, linguistic analysis tools allow students to examine texts and identify patterns and trends that would be difficult to detect manually or in traditional historical studies. Similarly, interactive maps provide a more dynamic and visual understanding of specific historical processes.

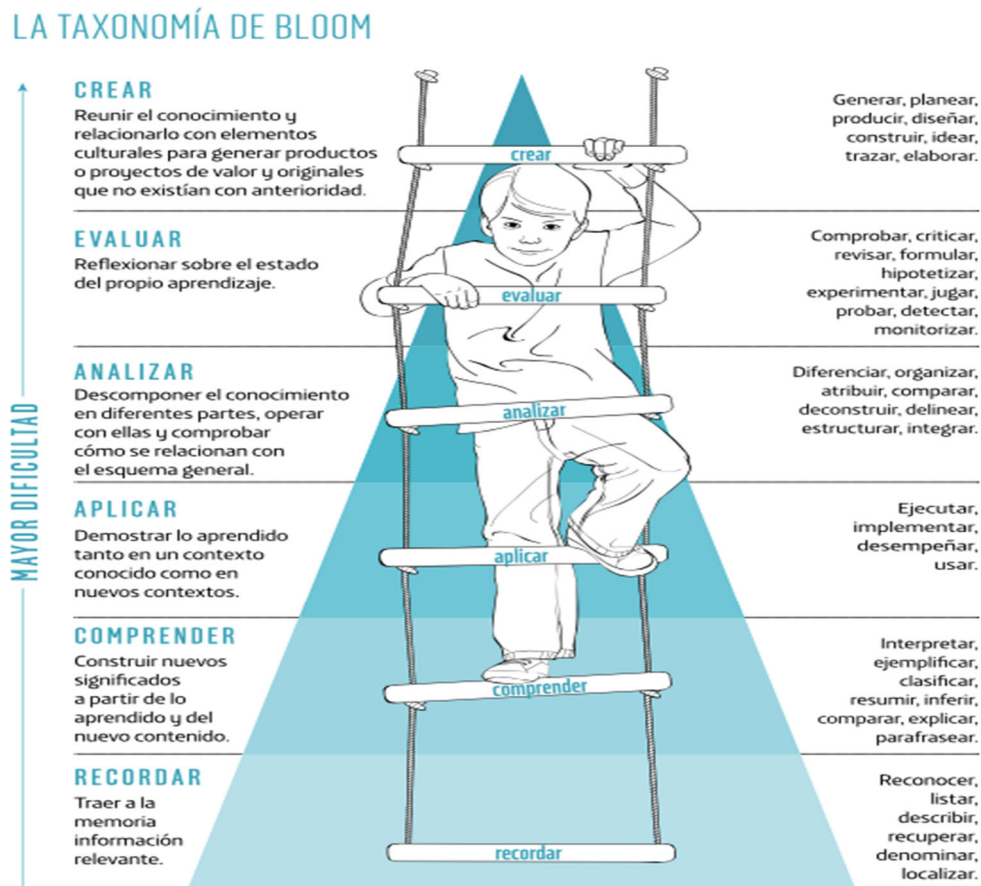
### 3.1. Designing a Learning Environment

To design a learning landscape, it is essential to consider two key theories: Howard Gardner's Theory of Multiple Intelligences (1983) and Bloom's Taxonomy (Churches, 2008).

Gardner's Theory of Multiple Intelligences posits that intelligence is divided into distinct domains within the brain, each developing optimally in environments that nurture its growth. Although this theory has been criticized for its lack of empirical evidence and reliance on subjective judgments (Pallarés-Dominguez, 2021), it is still widely applied in education to address diverse skills and abilities. These domains include linguistic-verbal, logical-mathematical, intrapersonal, interpersonal, bodily-kinesthetic, musical, naturalistic, spatial, and potentially existential intelligence, although the latter remains unvalidated (Shearer, 2019).

On the other hand, Bloom's Taxonomy, illustrated in **Figure 1**, categorizes cognitive processes in a hierarchical pyramid ranging from the simplest to the most complex levels.

**Figure 1.**  
*Bloom's Taxonomy*



Source: Hernando (2015, p. 50)

The following Table 1 outlines the phases involved in designing learning pathways.

**Table 1.**  
 Phases for Creating Learning Landscapes.




















<b>PHASE 1</b>	Identification of Specific Competencies and Learning Objectives	Establish the specific educational objectives, ensuring they are aligned with the digital competencies and critical skills to be developed in students, as well as with the content to be presented within the learning landscape. Examples: <ul style="list-style-type: none"> <li>- Develop critical thinking and analysis skills.</li> <li>- Promote digital literacy.</li> <li>- Integrate historical knowledge with digital tools.</li> </ul>
<b>PHASE 2</b>	Selection of Content and Digital Tools	Select the content to be used in the landscape, as well as the most suitable digital tools, based on the educational stage and characteristics of the students. The content may include literary texts, historical documents, works of art, etc. The tools may include: <ul style="list-style-type: none"> <li>- Text analysis software to study large literary corpora.</li> <li>- Interactive map creation platforms to explore historical events.</li> </ul>
<b>PHASE 3</b>	Designing Personalized Learning Pathways	Learning landscapes should offer personalized pathways that adapt to each student's needs, interests, and learning styles. To achieve this, strategies can be used to generate different learning routes based on: <ul style="list-style-type: none"> <li>- Initial assessments of skills and knowledge.</li> <li>- Student preferences and motivations.</li> <li>- Results from previous activities and assessments.</li> </ul>

<b>PHASE 4</b>	Integration of Interactive Elements and Gamification	It is recommended to incorporate interactive elements and gamification such as: <ul style="list-style-type: none"> <li>- Interactive challenges and activities that reinforce the content.</li> <li>- Badges and rewards for achieving objectives.</li> <li>- Learning pathways that allow students to choose their own route and personalize their experience.</li> </ul>
<b>PHASE 5</b>	Implementation of Bloom's Taxonomy and Multiple Intelligences in Combination with Teaching Methodologies and Digital Tools	When designing activities, it is important to use a matrix that will allow us to organize the activities and resources based on the combination of different teaching methodologies, technologies and digital tools, multiple intelligences, and Bloom's Taxonomy.
<b>PHASE 6</b>	Assessment and Feedback	Consider the assessment methods and continuous feedback that allow measuring student progress and adjusting the learning pathways as needed.

Source: own elaboration based on Hernando (2015) and Tomé et al., (2021).

Once the phases are defined, the following image (Image 2) shows a matrix template that will allow us to organize and structure the activities and resources, considering the curriculum, content, objectives, competencies, and assessment. This matrix is based on the combination of different teaching methods and digital tools. On the axes of the matrix, at the top, the multiple intelligences are filled in, and on the left-hand entry, the six cognitive levels are included. This will result in a document with 48 cells where each intelligence intersects with the cognitive level. The intelligences guide the activity style, and Bloom will direct the objective of these. These cells will help the teacher design activities that students will carry out, which can vary in depth and levels of difficulty. These activities can be mandatory, optional, for reinforcement or extension, and it is not necessary to complete all 48 cells (Hernando, 2015; Tomé et al., 2021).

**Figure 2.**  
*Learning Landscape Matrix.*

	 LINGÜÍSTICO-VERBAL	 LÓGICO-MATEMÁTICA	 INTERPERSONAL	 INTRAPERSONAL	 CORPORAL-CINESTÉSICA	 MUSICAL	 VISUAL-ESPACIAL	 NATURALISTA
<b>CREAR</b> Diseña / idea								
<b>EVALUAR</b> Revisa / prueba								
<b>ANALIZAR</b> Organiza								
<b>APLICAR</b> Usa / ejemplifica								
<b>COMPRENDER</b> Compara								
<b>RECORDAR</b> Define, describe								

Source: Hernando (2015).

Considering all the parameters outlined above, in each cell, because of the intersection of categories, the activities are identified according to the following Table 2, which should be presented to the students with the necessary content.

**Table 2.**

*Fundamental Elements of Each Cell in the Learning Landscape.*

<b>Title</b>	<b>Activity</b>
<b>Location of the resulting intersection between intelligence and bloom's category</b>	Which multiple intelligences and Bloom's Taxonomy categories apply? It is essential to ensure that no intelligence or cognitive category is left out.
<b>Learning objectives</b>	What learning is being pursued?
<b>Challenge/puzzle or enigma</b>	What needs to be solved? Introductory question or puzzle to be resolved.
<b>Outcome</b>	Desired outcome or final product.
<b>Materials and content</b>	Materials and documentation needed for the activity.
<b>Time</b>	Approximate time for completion.
<b>Evaluation criteria</b>	What evaluation criteria will be considered?
<b>Evaluation tools</b>	What tools will be used to evaluate the final product?
<b>Multidisciplinary approach</b>	What relationship exists with other activities in the matrix?

Source: own elaboration based on Hernando et al., (2018)

Considering the elements presented in Table 2, the minimum teaching standards are ensured, while designing mandatory, optional, and reinforcement activities. The teacher can select which activities are mandatory and thus award prizes or badges—without any grading value. For example, by completing more than three activities from one type of intelligence, a badge can be awarded, which can encourage the student to continue learning with new activities that reinforce their learning needs or enhance their qualities or interests (Hernando, 2015, p. 51).

### 3.2. Assessment of Learning Landscapes

The assessment of learning landscapes is an integral and continuous process aimed at measuring student progress, the effectiveness of pedagogical strategies, and the suitability of the resources used. It is also an especially useful tool for students to take responsibility for their own

learning in the implementation of a Learning Landscape. This evaluative approach is based on a combination of formative and summative assessments, personalized feedback, and continuous adaptation of learning paths, to ensure that individual student needs are met and that an authentic assessment is carried out (Hernando et al., 2018).

In the following Table 3, we present various digital tools that can be used to assess learning landscapes, based on the type of evaluation intended to be carried out.

**Table 3.**  
*Digital tools for the assessment of learning landscapes.*

<i>Formative</i>	<p>This takes place throughout the learning process and provides feedback, identifying areas for improvement and adjusting learning paths in real-time.</p>	<ul style="list-style-type: none"> <li>- Online quizzes: Google Forms, Kahoot it, Socrative.</li> <li>- Discussion forums: Implement forums using tools like Brainstormings Canva.</li> <li>- Learning journals: For students to record their reflections and progress using tools like Google Drive, Evernote, SeeSaw.</li> <li>- Final projects: Integrative works that allow students to apply what they have learned in a practical context. Digital tools like e-portfolios, collaborative walls can be used.</li> </ul>
<i>Summative</i>	<p>This takes place at the end of the learning path. It is essential to determine the success of the learning landscape in terms of competencies acquired.</p>	<ul style="list-style-type: none"> <li>- Oral presentations: Assessing students' ability to communicate ideas and findings. Using digital presentation tools like Genial.ly, Canva, Padlet.</li> </ul>
<i>Feedback</i>	<p>Personalized feedback is essential for the continuous development of students.</p>	<ul style="list-style-type: none"> <li>- Digital feedback: Using digital tools like Quizlet, Seesaw, Edmodo, Padlet for immediate feedback.</li> </ul>
<i>Adaptation</i>	<p>Adjusting and improving learning landscapes involves continuous review of paths, methodologies, and resources used, based on data gathered from formative and summative evaluations.</p>	<ul style="list-style-type: none"> <li>- Data analysis: Microsoft Excel, Google Sheets, Tableau, Google Data Studio.</li> <li>- Review meetings: Planned through tools like Doodle, Trello.</li> <li>- Satisfaction surveys: Survey Monkey, Google Forms, Kahoot! Reports.</li> </ul>

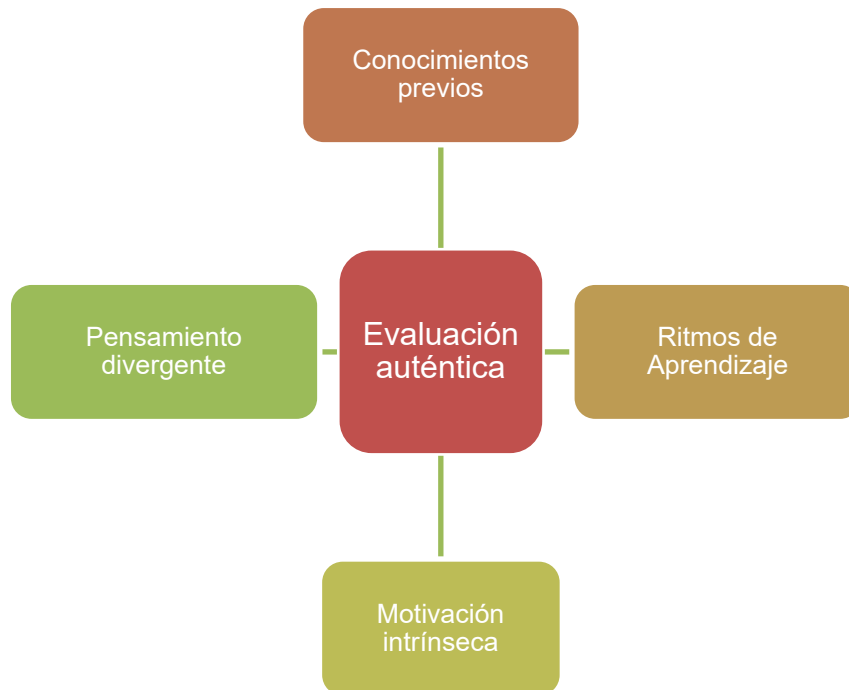
Source: own elaboration based on Hernando (2015) and Tomé et al., (2021)

Furthermore, an authentic assessment is proposed that allows creating links between what is learned and its use for problem-solving (Villarroel and Bruna, 2019). This assessment is characterized by its focus on the practical application of knowledge and the development of competencies that will enable students to solve real-world problems. We consider assessment to be an inseparable aspect of the teaching and learning process, as it is an action aimed at regulating learning.

According to Ahumada (2005), authentic assessment should be based on the students' prior knowledge, as it is the foundation upon which new learning is built. This type of assessment is flexible and adapts to different learning paces, allowing each student to progress at their own pace. It promotes divergent thinking as students generate multiple solutions to a proposed problem or challenge, which involves thinking creatively and originally. Giving students a certain degree of autonomy and control over their learning increases their intrinsic motivation.

The following Figure 3 shows the conditions and assumptions of authentic assessment, allowing us to highlight the differences with traditional assessment.

**Figure 3.**  
*Conditions and assumptions of authentic assessment.*



Source: own elaboration based on Ahumada (2005, p. 14).

Integrating authentic assessment into learning landscapes offers an educational approach that not only measures students' knowledge and skills but also promotes personalized and motivating learning. By designing assessment tasks that reflect real-world situations and using digital tools to personalize and support learning, personalized learning paths can be created according to each student's pace and level of understanding.

### 3.3. Learning Landscape Experiences

Developing learning experiences based on learning landscapes involves integrating cross-cutting and interdisciplinary content with digital tools to create a virtual learning environment.

#### 3.3.1. Digitalization Projects in History

These initiatives aim to transform and preserve historical knowledge with digital technologies. Learning landscapes based on the digitalization of history can encompass a wide range of activities, from digitizing historical archives and documents to creating virtual platforms for research and dissemination of cultural heritage.

We propose a general design of how a Learning Landscape is developed for 4th-year Secondary Education (E.S.O.) students, who will be guided by different events of contemporary history. In the matrix, we will observe activities that consider all cognitive levels and three of the multiple intelligences. This table will serve as a reference framework to create a learning landscape.

As digital resources, we have the World Digital Library, an initiative by UNESCO in 2009, which offers online access to historical documents from around the world (<https://www.bne.es/es/catalogos>). Additionally, UNESCO's Memory of the World project focuses on documenting and preserving the tangible and intangible cultural heritage of the world using digital technology (<https://www.unesco.org/es/memory-world>).

**Table 4.**

*Learning Landscape Matrix “Exploring Contemporary History”.*

Bloom's Taxonomy	Bloom's Taxonomy	Bloom's Taxonomy	Bloom's Taxonomy
Remember	Visual-Spatial	Create a presentation showcasing images and relevant documents from a specific historical moment	Power Point Google Slides
	Logical-Mathematical	Organize historical events chronologically using an interactive timeline and explain their historical causality.	Timeline JS Tiki-Toki
	Bodily-Kinesthetic	Reenact a historical event through role-playing.	iMovie Screencast-o-matic.
Understand	Linguistic	Read and analyze historical texts from the World Digital Library to understand the perspectives of different countries that experienced the same historical event and summarize it in a short post.	Padlet Genial.ly Canva Google Docs
	Visual-Spatial	Analyze historical maps from World War II to understand changes in borders and population movements over time.	Google Earth ArcGIS
	Musical	Listen to popular music and discuss how it reflects the emotions and culture of society during that time.	Spotify Youtube
Apply	Visual-Spatial	Create a digital collage showcasing everyday life during a specific historical period.	Canva Genial.ly Padlet
	Logical-Mathematical	Design a quiz game about contemporary history and play it in groups to assess students' historical knowledge and understanding.	Kahoot! Qizzz Socrative

Analyze	Naturalist	Research the influence of natural disasters on historical events and create a multimedia report explaining these relationships, displayed on an interactive map.	StoryMap JS Google Earth Popplet
	Visual-Spatial	Conduct a comparative analysis of different artistic representations of a historical event to understand how it has been interpreted over time. Create an online digital exhibition to share findings with the educational community.	Padlet Lucidchart Genial.ly Canva
	Logical-Mathematical	Create charts to represent historical data and draw conclusions about trends and patterns.	Google Sheets Microsoft Excel
	Interpersonal	Participate in group discussions to explore different interpretations of a historical event based on sources from the World Digital Library and collaborate on a shared document synthesizing the group's conclusions. Organize the virtual meeting via Doodle.	Zoom Microsoft Teams
Evaluate.	Naturalist	Assess how environmental changes have influenced human history and present a report using an online publishing platform.	WordPress Blogger
	Musical	Evaluate the message and effectiveness of a historical protest song, discussing its impact on the society of its time, and record the discussion in video or podcast format.	Prezi Cantania iMovie
	Visual-Spatial	Create a multimedia presentation evaluating the relevance and historical impact of a specific document found in the World Digital Library, using an online survey tool to gather audience opinions on the contemporary impact of that historical moment.	Prezzi Spark Canva Google Forms Survey Monkey

Source: own elaboration.

### 3.3.2. Creation of Digital Repositories

The creation of digital repositories enables both teachers and students to store, organize, and share a diverse range of digital resources. These repositories may include historical documents, images, videos, and movie clips, among other media.

Below is a proposed general design for developing a Learning Landscape tailored to First-Year Secondary Education (E.S.O.) students. The matrix outlines activities that address all cognitive levels and incorporate three multiple intelligences. This framework serves as a foundation for building a comprehensive learning landscape.

The Service-Learning project revolves around creating a Digital Repository for the school, specifically designed for Primary Education students. This repository will also be made available at the local municipal library, providing access to the entire community.

The following Table 5 presents the Learning Landscape Matrix for the project titled “Digital Repository for the School and the Municipal Library.”

**Table 5.**

*Learning Landscape Matrix: “Digital repository for the school and the municipal library”.*

Bloom's Taxonomy	Bloom's Taxonomy	Bloom's Taxonomy	Bloom's Taxonomy
Remember	Linguistic	Read classic stories and book summaries to include in the digital repository. Present an oral summary and record it for the repository.	StoryJumper Google Docs
	Logical-Mathematical	Classify books and stories by themes and create a thematic database.	Google Shets Airtable
	Interpersonal	Work in teams to create a digital catalog of children's and young adult literature. Create a presentation of the catalog.	Padlet Genial.ly Popplet
Understand	Linguistic	Narrate stories and record the sessions.	VoiceThread SoundCloud
	Visual-Spatial	Create infographics of the stories narrated in the books and hold an infographic exhibition in the library.	Canva Piktochart
	Naturalist	Create a digital guide of stories about nature.	Google Docs Book Creator
Apply	Visual-Spatial	Create a digital collage with small reviews of the	Canva Genial.ly Padlet

		selected stories and books.	
	Logical-Mathematical	Solve riddles based on the selected stories and record the results.	Kahoot! Quizizz Socrative
	Interpersonal	Conduct interviews with local authors and upload them to the repository so that local literary works are known. Open a discussion forum about the recorded interviews.	Zoom Microsoft Teams
Analyze	Visual-Spatial	Compare different illustrations of the same story and analyze them. Create digital collages.	Genial.ly Canva Spark
	Logical-Mathematical	Create graphs of the popularity of stories and books. Discuss the results.	Excel Google Sheets
	Musical	Create choreographies based on stories and record them.	TikTok Vimeo
Evaluate.	Linguistic	Write book reviews and share them in the repository.	WordPress Blogger
	Musical	Evaluate the effectiveness of jingles and discuss in a group.	Soundtrap GarageBand
	Visual-Spatial	Evaluate book and story covers. Design new covers.	Canva Spark Genial.ly

Source: own elaboration.

#### IV. Conclusions

The dynamic and varied approach of learning landscapes is a key element in keeping students motivated and engaged, which is essential for effective and meaningful learning. This process allows educators to design learning experiences that adapt to the individual needs and interests of students, fostering an inclusive and personalized educational environment. By implementing learning landscapes that integrate Digital Humanities, a richer and more diverse educational experience is created, promoting interdisciplinarity and helping students make connections between different areas of knowledge.

In an increasingly digitalized world, it is crucial for teacher training programs to adapt to integrate digital skills and innovative methodologies. The combination of Digital Humanities and learning landscapes offers a comprehensive approach to preparing future educators. This approach enables educators to not only teach digital competencies but also to integrate elements of the humanities, fostering a more holistic education that is connected to the world. The learning landscape matrices we have presented demonstrate how these approaches can be applied in secondary classrooms. By designing activities that take authentic assessment

into account, educators ensure that students not only acquire basic knowledge but also develop practical skills. For example, in the design of the learning landscape proposing the creation of digital repositories for primary school students, not only are technological skills taught, but collaboration, creativity, and digital responsibility are also promoted.

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## Chapter 3. The ethical implications of the use of AI and ChatGPT in educational institutions in the European Union

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### I. Contextualisation

What is the importance of education in contemporary society? Although it may seem this question has an obvious answer, in the 21st century it has certain nuances due to the disruption caused by the phenomenon of digitalisation. Digitalization has modified the educational paradigms by introducing new ways of accessing knowledge and more flexible and customised methods of learning (Culajara et al., 2022).

This entails that the relevance of education in contemporary society be the object of a constant and deep analysis in diverse scopes, including media and political and corporate ones. Education has a central role in the development and evolution of modern societies, and its importance is manifested in multiple individual and collective dimensions (Fägerlinf & Saha, 2016).

This topic has considerable relevance, as there is a significant connection between the educational level reached and diverse socioeconomic indicators, such as perceived income and social status (Ma et al., 2016). In the European Union (EU) context, data proves that, generally, individuals who have completed superior studies experience a marked difference in salary from those who have only reached secondary studies. This contrast is reflected in a difference of 50% approximately in these two groups' income, although it is worth noticing that there are significant variations between the different member countries of the EU. This phenomenon underlines the direct connection between the reached educational level and the determination of personal income, which has significant repercussions in the distribution of wealth and social prestige in the context of contemporary society. Thus, an individual's educational level has a direct influence in their working opportunities and in their capacity to access better-paid and higher-level jobs within the socioeconomic structure (Shavkidinova et al., 2021).

This concept was first posed in Adam Smith's (1723-1790) seminal work, which highlighted the importance of receiving an adequate education, as it facilitated the acquisition of abilities that overcame natural talent. A. Smith pointed out that acquired knowledge, as opposed to innate talent, played a fundamental role in the improvement of the productive process. Nevertheless, the benefits from education were not limited to just the improvement of productivity; other aspects are considered relevant, such as reduction of inequality (as

indicated by Thomas Malthus (1766-1834)), increase of motivation (highlighted by John Stuart Mill (1806-1873)), and the concept of creative destruction (Bullen et al., 2004).

However, we're not only interested in discussing purely economic concepts but in examining how digitalisation has created the need for reconsidering the concept of education. Under the technological context, the socio-technical factors that explain the employability of the techniques and the pedagogical dynamic between the principal actors of the educational system (teachers, pupils and public institutions) have been altered. These actors must possess a great capacity for innovation and adaptation to the learning environment (which is in constant development), and the set of educative effects derived from the use of the system linked to digital transformation.

Due to its nature, education transcends the mere accumulation of technical knowledge and encompasses a search associated with the enhancement of the integral development of individuals. This implies fostering skills, such as critical thinking, creativity, problem-solving, teamwork, and respect for diversity, among other aspects. However, it is crucial to consider other aspects, such as ethics, which are fundamental in the integral formation of the individual and where education plays an essential role.

There is no doubt about the importance of an integral and consolidated educational system and given that digital technology is becoming an omnipresent feature in our lives, there are certain ethical challenges that must be addressed (Thomas & Yang, 2013).

Among the digital tools that are having a significant impact on the educational field, the progress of generative Artificial Intelligence (AI) is highlighted. In this context, ethical questions about the correct handling of said technology arise. The application of algorithmic decisions and the presence of biases in AI's systems pose dilemmas, as they can facilitate the understanding of problems from different perspectives but also lead to evaluation practices that lack inclusivity and are oriented to just meet formal requisites.

Despite ample recent discussions about the ethical implications of the use of AI in the educational field (Sok and Heng, 2023; Lo, 2023), it is evident that AI has a consolidated presence and simultaneously has had significant repercussions in the educational system. This phenomenon markedly underlines the transformation of the educational system (Kaur et al., 2020), which indicates a transition from Homo sapiens to Homo digitalis. This last concept reflects a clear evolution of humanity in an era in which technology has a central role in different aspects of our lives (Montag and Diefenbach, 2018).

As technology is still progressing and being incorporated into our daily lives, it is essential to conduct a critical analysis of AI's benefits and challenges in the educational field and its ethical and social implications. In this sense, AI's application in the educational system can improve its efficiency and quality, as well as customise learning, which would provide a more interactive and attractive learning experience for students (Baidoo-Anu & Owusu Ansah, 2023).

Academic literature (as well as academic institutions) does not overlook the importance of AI, specifically including the arrival of ChatGPT, which constitutes a natural language processing tool (NLP) able to enhance the teaching process' effectiveness through the customization of learning (Mhlanga, 2023).

At this point, it is evident that AI's problems and their resolution are of a structural indole, which implies the necessity for continuous pedagogical innovation to prevent us from falling into disruptive tramps. That is the reason why AI, through its algorithms, can collect and analyse data about the students' performance and preferences, which allows educators to adapt their teaching to the individual necessities of each student.

We cannot forget that AI can also provide immediate and precise feedback to students, which can improve the quality of their learning experience and their retention of knowledge. Thus, AI has become a great tool that allows teachers to have a more penetrating and efficient capacity for transmitting their knowledge to students.

Nonetheless, AI is emerging as a fundamental and valuable tool in the educational field. However, it is imperative to take into consideration the ethical and social implications associated with its implementation in the educational system.

How will this affect the relationship between teacher and student? Are inequalities emerging between those who have access to advanced technologies and those who do not have access to them? What happens to the privacy of students' data? These are some of the questions that will be addressed in the discussion about AI's implementation in the education sector.

Furthermore, it is important to explore AI's impact on the training of necessary skills and competencies for the future, such as problem-solving, creativity and critical thinking. Can AI improve or limit the development of these skills? How can task automatization and the necessity of developing unique human skills be balanced?

Although literature is immersed in a critical exam of AI's impact on education, not only in terms of improving its effectiveness but also of the ethical and social implications that emerge with its implementation, there are clear challenges that must be addressed to maximise the potential benefits from this tool in the educational field (Luan et al., 2020). These challenges include the necessity of developing a solid and accessible infrastructure, guaranteeing the privacy and security of students' data and training teachers in the effective use of technology.

As technology advances, AI may continue to transform education in unthinkable ways. Thus, educators, academics-teachers and public institutions must work together collaboratively to take advantage of the potential of technology responsibly and sustainably to guarantee that education continues to be relevant and accessible to all students.

Thus, this research will explore the ethical impact of AI in education, its potential to transform how teaching and learning are carried out and will discuss some of the ethical and social questions that emerge with the implementation of this technology in the classroom from the students, teachers and public institutions' perspectives.

The chapter is divided into different sections that will show the discussion generated around AI and education. Thus, in the introduction, the general topic of the article is presented, where the importance of AI in education is contextualised, and the aim of the article is established. In the theoretical framework section (Section 2), the current discussion in literature about the relationship between AI and education will be discussed, mentioning the existing different approaches and perspectives.

In section 3, the relationship between ChatGPT and education will be specifically addressed, highlighting how this technology can be used as a tool to support the educative processes in teaching and learning.

In section 4, the ethical implications of the use of AI in education will be examined from different perspectives: that of students, teachers and academic institutions. Questions such as privacy, equity, algorithmic bias and responsibility will be explored.

In section 5, the position of the EU on ChatGPT and its application in education will be discussed. The existing politics and regulations will be mentioned, as well as the directions established by the EU to guarantee the ethical and responsible use of AI in education.

Finally, the conclusions section will sum up the main points addressed in the article, present final reflections and offer possible future topics for research on the AI and education field.

## **II. Artificial intelligence and education**

Diverse definitions of the term “Artificial Intelligence” coexist, although all of them coincide in the conceptualization related to the capacity of learning, creativity and problem-solving of digital machines (Xia et al., 2022). The presence of AI in society and people’s daily lives is undeniable. In this context, it is of greater importance to take into consideration the clear role that IA plays in the educational field (Chen et al., 2020).

However, at this point, the question arises: What is AI’s potential to optimize the efficacy of education? One of the main aspects to consider is AI’s ability to individualise the learning process (Chen et al., 2020). This fact allows us to contemplate various realities from the teacher’s perspective, which creates a more detailed analysis of the students’ performance data and allows us to adapt the curriculum to each student’s special needs (Goskel and Bozkurt, 2019). Furthermore, AI also provides immediate and precise feedback to students, which can improve the quality of their learning experience (Blikstein and Blikstein, 2021). Altogether, AI has a notable influence from the student’s perspective, as these tools enable significant improvements in knowledge retention and the students’ academic performances (Pedro et al., 2019).

In this context, we can also add the promotion of the development of skills and competencies that are aligned with the demands of future digital knowledge (Chiu et al., 2023). Academic literature indicates that AI can enhance the development of technical skills (Pedro et al. 2019), but it can limit the development of unique human skills such as creativity and critical thinking. It is crucial to address these circumstantial factors to guarantee that AI is employed effectively in the promotion of skills and competencies pertinent to the world in constant change and evolution in which we live.

Thus, we cannot deny that AI’s implementation in education also poses important ethical and social challenges. For example, the privacy of students’ data is a critical topic that must be addressed to guarantee that students’ personal information is managed safely and responsibly (Álvarez-Flores, 2021). Furthermore, AI also poses questions about the relationship between teacher and pupil and the inequalities in access to advanced technology among students (Vera, 2023).

Thus, the notion that AI has the potential to generate a significant transformation in the educational field, improving the efficacy of the learning processes but also its customization, besides facilitating the acquisition of relevant skills for the future, is upheld.

Nevertheless, its implementation also poses important ethical and social challenges that must be addressed to guarantee that technology is used responsibly and sustainably. Educators, researchers and politicians must work together to take advantage of the technology's potential responsibly and equitably.

### III. ChatGPT's challenges

Despite AI's vast incorporation in different sectors, such as health, finances, the automotive industry, and as addressed in this section, education, a particularly highlighted tool has emerged: ChatGPT.

How has ChatGPT reached such a level of importance? As proved, this tool represents a remarkable example of application in the educational field, where many students use ChatGPT for different tasks, such as text redaction, among others. This phenomenon has generated an exponential increase in its use. As a grand-scale language model, ChatGPT uses natural language processing techniques and automatic learning to generate answers in real-time to different questions that users can ask (Clarizia et al., 2018).

As mentioned previously, using AI, specifically ChatGPT, in education has various advantages, such as learning personalisation, immediate accessibility and feedback. Users can ask questions in their own language and get answers in real time, this allows them to learn at their own pace and adapt to their own needs (Yan et al., 2016). Another advantage is that it helps overcome language and distance barriers in education (Adiguzel et al., 2023). In this case, students can learn online in an effective and efficient way, independent of their geographic location or their native language, since ChatGPT has the option to translate the text in the needed language (Eke, 2023). This can improve the accessibility to education and bring learning opportunities to a more extended public.

However, in multiple situations we see the other side of the story, and in this case, the use of AI in education also sets out important ethical and social challenges (Kasneci et al., 2023). To warrant a responsible and equitable use of AI in education, various dimensions have to be considered. One of them being the necessity to guarantee privacy and protection of student's information. Because of that, it is important to point out that the compilation and use of information must be abided by strict ethical and legal requirements, students and their parents or tutors must be informed, and their explicit consent must be obtained.

Another important challenge is the necessity to avoid algorithm discrimination. Algorithms used in education can perpetuate bias and inequalities, and this can cause negative consequences for some groups of students (Trinidad, 2020). Therefore, it is important that technology developers and decision makers in education work together to identify and deal with bias and prejudices on AI's algorithms.

Furthermore, challenges related to education and evaluation must be considered. AI's algorithms can be efficient for automatic evaluation and feedback, but there are still challenges of context comprehension and the subjectivity of the evaluation of more complex abilities.

Therefore, it is important to keep investigating and developing technology that can evaluate students' complex abilities and competencies effectively (Gunawan et al., 2021).

In this regard, numerous strategies to deal with the ethical and social challenges of AI in education have been suggested. One of them is the transparency and applicability of algorithms. It is important that students and teachers understand how algorithms work and how decisions are made, so they can trust technology and make informed decisions about their use (Vincent-Lancrin et al., 2020).

Another possible strategy which could be interesting considering is encouraging a close collaboration, as well as encouraging the dialogue between the different agents related to educational decisions making regarding the AI and technology responsables and developers.

Therefore, it is important that the responsables of education have active knowledge on AI development, as well as participate actively in the implementation of technology in classrooms. This will guarantee the correct implementation and adaptation of AI to teachers and students' necessities (Dwivedi et al., 2023).

Along this process, we should not forget the importance of promoting an ethical culture of responsibility on the use of AI in any of the educational system levels of a country. In this case, it is necessary that both teachers and students are correctly informed about the different risks and challenges that AI's use imply on the educational system (Trinity, 2020).

AI has the potential to transform education and improve learning and teaching languages, but it also sets out important ethical and social challenges. To tackle these challenges, strategies like transparency and applicability of algorithms, cooperation between educational decision makers and technology developers, and the promotion of ethical and responsibility culture on the use of AI in education must be considered. With these approaches, we can take advantage of the potential of AI in education and guarantee a responsible and equitable use of technology.

Which are the components and how are the roles of the educational agents drafted by means of the adoption of ChatGPT? To address this question, it is important to emphasise that various roles and applications of ChatGPT are identified in the educational model context. As Sabzalieva and Valentini (2023) point out, these roles are described in detail on Table 1.

**Table 1.**  
*Roles that ChatGPT acquire*

<b>Rol</b>	<b>Description</b>
Possibilities' motor	AI generates alternative ways to express an idea
Socratic opponent	AI acts as an opponent to develop ideas and arguments
Collaboration coach	AI helps groups to investigate and resolve problems together
Complementary guide	AI acts as a guide to navigate through physical and conceptual spaces
Personal tutor	AI guides each student, and it gives them immediate information about their progress.
Co-designer	AI helps along the designing process
Exploratorium	AI provides tools to explore and interpret information
Studies comrade	AI helps the student to think about the learning material
Motivating	AI offers games and challenges to increase learning
Dynamic evaluator	AI provides teachers a profile of each student's current knowledge

Source: Sabzalieva & Valentini (2023, p.10).

#### **IV. Conceptualisation of the difference between ethic and morality**

Before proceeding to accurately describe the ethical implications of using AI and specifically ChatGPT in the educational field, it is necessary to succinctly describe what is ethics and what is morality, terms that tend to get mixed up.

Continuing on what Gómez & Mugerza (2007) indicate relating to the difference between ethics and moral, it is emphasised that the word “ethic” comes from ethos and it derives from “character”, while “moral” comes from the Latin word “mos/ moris”, that can be translated as “dwelling”. In spite of the considerable variety of definitions that have been presented by diverse authors throughout history relating to the concepts of ethics and moral, according to what the author mentioned and Aranguren (1995) have laid out in a succinct way, it can be deduce that ethics is associated with the thought field, while moral, by virtue of its etymological origin, is tightly bound to experiential practice field. Ethics is put forward as a theoretical matter and moral as a practical one.

Having said that, inside the morality field, an autonomous morality and a heteronomous morality exists. The heteronomous moral is the part which humans consider good because others tell them it is and, therefore, it has synergy with the Kantian Categorical Imperative (Kant, 2012). On its part, autonomous moral is the one of individuals that, in an evolved phase of their social, emotional and moral development, are ready to break the rules if necessary (Oronoz, 2021). From this perspective, it could be appropriate to address what constitutes individual wellbeing, also known as self-love ethic (Savater, 2008). Nevertheless, in this chapter it is relevant to examine the matter from the fundamentals that ethical implications favour, given that it is addressed from a theoretical level to later analyse it in a more applied or practical level.

Although this investigation is focused on the ethical repercussions in employment of the digitalization mentioned, it is imperative that the reader recognise that the last purpose of what has been exposed is linked with encouraging an autonomous moral in students and other fundamental actors, who almost inevitably include AI in their learning process.

In this sense, it is necessary to know the rules that regulate the ethical use of AI but also encourage teachers to use these tools as a way to promote a significant teaching-learning process, in which digital education is addressed, trusting in the development of students’ autonomous moral.

At this point, we decide to address the next question: Which are the ethical implications of AI and ChatGPT regarding educational actors?

As previously mentioned, ethics constitutes an investigation area dedicated to morality and human behaviour study (Chauí, 1998). It is an ensemble of principles and values that rule the behaviour of individuals and organisations, based on the idea of correct and incorrect, fair or unfair, good or bad (Chauí, 1998).

With the increasing of educational digitalization, ethics also have acquired importance in the digital context. Teachers and students should consider how digital technologies are used. Because of this, ethics in digital education implies more academic honesty, from teachers who must be conscious of a massive use of digitalization in class (Schmidt et al., 2020), and also

from students where they should be conscious of plagiarism risks and should cite the sources of their academic work properly. Therefore, there must be a responsible use of technology.

Next, we are going to analyse how actors interact from diverse perspectives regarding AI and ChatGPT.

### *Student's perspective*

The use of AI and ChatGPT in the educational field can generate significant ethical implications, particularly regarding its adoption by students (Sison et al., 2023). However, these implications can be positive as well as negative.

#### *Negative ethical implications:*

Cognitive technology's use can mean the recollection and analysis of personal information of students, and this raises ethical issues related to privacy and data protection. Moreover, these technologies can contribute to perpetuate or even cause new disparities in education, generating ethical dilemmas around discrimination and equity. In this sense, it is essential to design algorithms used in education in a way that they do not perpetuate these inequalities, addressing existing prejudices in society, such as gender, race and socio economic situation. Furthermore, excessive dependency on AI and ChatGPT can restrict students' critical thought and autonomy, contemplating ethical questions about individual responsibility and autonomy. In consequence, it is fundamental that students use these tools in a critical and reflexive way, while development in cognitive abilities and in critical thought to confront educational challenges with autonomy and responsibility is encouraged.

#### *Positive ethical implications:*

The use of AI, particularly ChatGPT, can contribute to the improvement of accessibility to education, encouraging equal opportunities by eliminating possible access barriers. Likewise, these technologies allow the personalisation of the learning process, adapting to individual necessities of each user, which brings a quality improvement and learning efficiency. On the other hand, the use of AI by teachers can bring an improvement of the feedback provided to each student, which potentially increases the quality of teaching.

This leads us to maintain that the integration of intelligent technology in the educational field can set out considerable ethical implications for students. It is fundamental to address these challenges and to encourage a responsible and ethical use of these tools in order to assure that its benefits for the learning process and teaching task are optimised.

Diverse strategies to address these ethical implications can be adopted, such as transparent and clear politics establishment for using AI's technologies in the educational field, training teachers and students to use these tools in a responsible and critic way, and the constant evaluation of AI's algorithms and systems used for education, to identify and correct possible bias and discriminations.

Furthermore, student's rights and necessities should be considered regarding the use of AI's technologies in education. This includes the right to privacy and security of personal and behaviour data, just like the right to an education which encourages student's cognitive, social and emotional development.

### *Teacher's perspective*

The use of cognitive technology by teachers also brings important ethical implications that should be considered. But which implications could these be? If we take the options about negative and positive implications, we find that:

#### *Negative ethical implications:*

Teachers' excessive dependency on AI can reduce creativity, autonomy and responsibility in their professional task. Moreover, the use of these technologies can lead to the dehumanisation of teaching, since they can replace human interaction and empathy, which potentially negatively affects student's emotional and mental wellbeing.

Furthermore, there is a risk, it is that teachers could depend too much on AI's technology and not assume the responsibility of making fundamental pedagogical decisions. It is essential that teachers use these tools in a complementary way to their experience and knowledge, and that they base their decisions on a profound comprehension of students' necessities and abilities.

Likewise, the introduction of algorithmic bias on AI and ChatGPT can cause or maintain inequalities in the evaluative standards, which stirs up ethical questioning regarding to discrimination and equity. AI's algorithms used by educators can reflect and strengthen bias and discriminations in the process of decision making, particularly when the data used for their training shows bias or scarcities. Therefore, it is fundamental that teachers adopt measurements to mitigate these biases and analyse in a critical way the information brought by technology.

#### *Positive ethical implications:*

AI's functionality can be a valuable tool to improve teachers' teaching because it brings personalised feedback to students, and it improves the quality and efficiency of the learning process in general. Furthermore, the adapting capacity of AI to students' individual necessities and preferences allows a more effective learning personalisation. What's more, the use of AI and ChatGPT can help teachers to save time and resources in teaching, and this allows them to focus on more creative and interactive activities with students.

As we have seen, teachers using AI brings considerable ethical implications. Therefore, it is crucial to address these challenges from a positive perspective, recognising the potential advantages of the appropriate use of AI in the educational field. This implies providing training to teachers on the critical and responsible use of AI's technology, conducting a continued evaluation of AI's algorithms and systems, and guaranteeing the protection of students and teachers data's privacy and security.

### *Perspective of public institutions*

Not only do students as well as teachers have the responsibility to use AI adequately, but active participation on the part of institutions is also fundamental. In this context, it is crucial to consider the corresponding implications. In order to tackle this issue, the following questions arise:

#### *Negative ethical implications:*

Institutions may use these tools in order to gather personal data from students and monitor their online activity, which poses ethical dilemmas related to privacy and surveillance. Making sure that data gathering and processing are carried out in an ethical way as well as introducing measures in order to prevent discrimination and bias in data analysis is key.

Furthermore, these tools may be programmed with algorithmic biases which perpetuate or even generate new disparities in education, raising ethical concerns regarding discrimination and equity.

In addition, there is an intense debate revolving around the excessive dependency on AI and ChatGPT by institutions, which could restrain creativity, autonomy, and responsibility in their professional work.

#### *Positive ethical implications:*

In terms of educational progress, AI may represent a significant improvement as it offers customised tracking of participants of the educational system. Moreover, AI has the potential to generate savings both in time and resources for public institutions, which allows them to focus on more creative and interactive activities with students.

From an educational innovation perspective, these tools may be considered as innovative and motivational resources, capable of driving student motivation and commitment. However, it is key that public institutions act with transparency regarding the use of AI and that they assume the responsibility of relieving possible negative impacts related to their implementation. Therefore, it is imperative that these institutions establish clear regulations regarding appropriate AI use in an educational context.

## **IV. The EU and ChatGPT**

So far, the European Union has not developed any specific plan regarding ChatGPT or artificial intelligence in education. However, the European Commission has established a set of ethical principles for AI in general, known as the “Ethical AI Framework of the EU,” which applies to all uses of AI, including educational ones. Likewise, the members of the EU commission finally reached a political agreement on the legislative proposal concerning AI in December 2023. Initiated by the European Commission in April 2021, this legislative proposal regarding AI makes the first horizontal binding rule in the field of AI, thus establishing a unified framework for the appropriate use of this technology. (Madiega, 2024)

This framework stipulates that AI must be understood and used in a responsible, ethical, and transparent way, ensuring the privacy, safety, and protection of user data. Likewise, it highlights the relevance of equity, inclusion, and non-discrimination in the design and use of AI.

However, the EU is committed to promoting responsible and ethical use of AI in education, and it is working on developing initiatives and programs which encourage the research and development of AI in this field, as well as on supporting the collaboration and exchange of good practices among member countries.

It is relevant to point out that, given the dynamic and continuously evolving character of technology, and of AI in particular, it is likely that new regulations and specific standards regarding the use of AI in the educational field will be established in the future.

Although the EU has not developed specific plans concerning the correct use of ChatGPT, it has established general ethical principles and regulations for the correct use of AI in education. However, it is likely that every AI application must be evaluated according to these principles and regulations in order to guarantee that it is used in a responsible and ethical way.

Additionally, it is relevant to highlight the commitment of the EU in promoting a responsible and ethical use of AI in the educational field. This initiative seeks to improve both the quality and the accessibility of education for all students. In this sense, an effort is being made towards supporting the research and development of AI in education, as well as on encouraging the collaboration and exchange of good practices among member countries.

About the use of ChatGPT, it may have certain ethical implications, positive and negative, for the whole academic system. However, its use may turn out to be beneficial if implemented in an adequate, responsible way. That is, the correct implementation of ChatGPT in education may help students improve their linguistic skills, acquire new knowledge, and be able to receive real time assistance and support. However, it is necessary to guarantee that the use of AI in education does not violate the privacy and safety of students' data or perpetuates discrimination and prejudice.

It is a fact that nowadays, many students in the European Union use ChatGPT and other AI applications in order to solve tasks, exams, etc., which confirms that the adoption of AI in education is increasingly common in all of Europe. This reality makes many countries start to consider changes in the regulations and applicability of AI in the academic world.

It is evident that European students are massively using mobile devices, tablets, and computers in the classroom; this fact has led schools to introduce digital platforms and tools for teaching and learning (Coccoli et al., 2014). What are these tools? Chatbots are being used in more detail, as well as different virtual assistants, including ChatGPT.

As it was previously mentioned, the EU is currently working on different policies and regulations which will allow to correctly deal with the challenges linked to AI and thus guarantee its correct use from an ethical and responsible perspective. In February 2020, the European Commission introduced a proposal for a Regulation concerning AI, which establishes rules for the development and use of AI systems in the EU, even in education.

It is true that the proposed regulations establish specific requirements for the AI systems used in education, such as the transparency and the extent to which algorithms can be explained, the quality and safety of the data used to train the systems, and the need for the AI systems to be accessible and non-discriminatory.

#### **IV. Conclusions**

The use of AI and ChatGPT in the field of education may bring both positive and negative ethical consequences. It is crucial to address these problems in a responsible, sustainable way, especially regarding students, educators, and public institutions.

From a student perspective, it is necessary to address the ethical implications related to privacy, discrimination, and technological dependency. It is fundamental that students have the chance to understand and manage the use of AI and ChatGPT in their learning process, and that their right to privacy and non-discrimination is ensured.

On a teaching level, ethical matters related to justice, responsibility, and autonomy must be addressed. Teachers must be qualified and be aware of the limitations and risks of AI and ChatGPT and be responsible for their use in the classroom. Furthermore, teachers' creativity and autonomy within their work should be encouraged.

On an institutional level, it is imperative to deal with ethical matters concerning equity, privacy, and social responsibility. Public institutions must ensure that AI and ChatGPT are used in a fair, equitable way for all students, while protecting their rights and privacy. Additionally, it is fundamental that the social and environmental implications of the use of AI and ChatGPT in the educational field are considered.

Therefore, the ethics in the use of AI and ChatGPT in the educational field make a complex and dynamic topic. A meticulous and responsible approach is required in order to both tackle the negative implications as well as to encourage the positive, on a student and teacher level as well as on an institutional one. In this sense, it is key to involve all interested parties in decision making and to practise a culture of ethical reflection revolving around the use of Cybernetics applied to education. Moreover, it is necessary to develop clear and updated regulatory policies and frameworks in order to guide the use of AI and ChatGPT in education in an ethical, sustainable way.

It is for this reason that the application of smart technology in the field of education presents a considerable potential to improve the quality of both teaching and learning. Nevertheless, it entails significant ethical challenges which require responsible and meticulous attention. Ethical reflection revolving around the use of AI and ChatGPT in education is key in order to ensure its equitable, fair, and sustainable use for all students.

Lastly, it is important to highlight that, even after the debates emerged at the core of the European Union, concrete plans to regulate AI have not been drafted yet. Still, certain ethical principles and some general guidelines specifically directed towards the educational field have been established. This situation takes on importance, as the use of AI must be ruled over with ethical principles which provide an adequate benefit among the academic society.

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## Chapter 4. Perceptions and predictive factors about Educational Technology in primary and secondary teachers in Spain

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### I. Introduction

The digital era has deeply transformed society, directly influencing all aspects of our daily lives, including education. Technological advances, especially smart mobile devices (SMD) and social networking services (SNS) have emerged as potential tools to revolutionise teaching and learning processes, promoting more interactive, customised and accessible educational practices (Fu and Hwang, 2018; Chang and Hwang, 2019).

These elements have a notable presence in the educational field because they are part of the students' daily lives, among other reasons. There is no doubt that students can benefit from their familiarity with these technologies creating more attractive and relevant learning settings. In this sense, studies such as the one conducted by Pérez Escoda (2018) highlight how children and adolescents use mobile devices from a young age, suggesting an opportunity to integrate tools that are part of their natural environment in educational processes, as they allow and facilitate a more customised learning experience. As indicated by studies such as the one conducted by Fu and Hwang (2018), mobile devices offer students opportunities for a customised learning experience, facilitating them to learn at their own pace and following their personal interests.

There are more reasons, these technologies promote innovative ways of collaboration and communication between students and teachers. Chávez and Gutiérrez (2015) highlight how SNS facilitate collaborative work and exchange of ideas, which is fundamental for more interactive and involving educative processes. At the same time, it is worth noticing that integrating SMD and SNS in education contributes to the development of digital skills, which are essential in the 21<sup>st</sup> century. According to the *Marco Común de Competencia Digital Docente* (INTEF, 2017), it is fundamental that students acquire digital skills, critical for their professional and personal future. Thus, it is ideal that they begin to acquire these skills before they access higher education. Furthermore, SMD and SNS provide access to a vast spectrum of online educational resources, facilitating access to knowledge beyond the classroom. Santiago Campión (2013) argues that mobile devices and the Internet open almost limitless possibilities to access information and educational resources.

And to point out another reason, the use of current technologies can increase students' motivation and compromise to learn. Studies such as the one conducted by González-Fernández and Salcines-Talledo have identified that mobile devices can have a positive impact on students' motivation towards learning.

However, the effective integration of these technologies in the educational field faces a series of challenges, among which teachers' perceptions and attitudes towards their educational utility are highlighted as a critical factor (Hart and Laher, 2015; Tondeur et al., 2017).

Previous research has shown that teachers' attitudes towards technology can facilitate or limit its adoption and effective use in the classroom (Ertmer and Ottenbreit-Leftwich, 2010; Tondeur et al., 2017). In this sense, the perception of utility, defined as the degree to which a person believes that the use of a specific technology will improve their performance at their job (Davis, 1989; Venkatesh et al., 2003), is presented as a decisive element in the integration of SMD and SNS in educational contexts. This study is based on the Technology Acceptance Model (TAM) and Roger's Diffusion of Innovation Theory (2003) to examine how teachers' perceptions and attitudes towards SMD and SNS affect their implementation in the classroom. Thus, understanding teachers' perceptions of these technological resources is fundamental to designing effective strategies that promote their integration into teaching practices.

This present study aims to explore through a predictive analysis primary and secondary levels teachers' perception of SMD and SNS's utility, analysing how demographic variables such as age, gender and educational levels, as well as the availability of technological resources and presence on social media, can influence said perception. The decision to focus on the Spanish context answers the need to provide empirical evidence in a specific environment, contributing to the global comprehension of this phenomenon and its implications for the professional development of teachers and education policies.

This study seeks to provide evidence of some factors that facilitate or inhibit the acceptance and use of SMD and SNS in education to support academic institutions in overcoming barriers to effectively integrating these technologies into the educational process.

## **II. Methodology, sample and instrument**

This study is based on predictive analysis to understand the perceptions and factors that influence the integration of smart mobile devices (SMD) and social networking services (SNS) in the educational field by preschool, primary and secondary educational levels teachers in Spain. The methodology used was designed to capture the complexity of the variables that affect these perceptions, including demographic variables, availability of technological resources and presence on social media.

The sample consisted of 2,659 teachers, representatives of Spain's 19 regions thus, guaranteeing a vast geographic coverage including a representation of all levels of compulsory education (preschool, primary and secondary education). The selection of participants was made through a random stratified sampling in each region, thus guaranteeing an equitable geographic representation. The participants were captured through announcements on teaching professional associations, educational social media and institutional e-mails, assuring anonymity and the confidentiality of the answers.

For a detailed specification of the distribution of the sample in this study about teachers in primary and secondary education's perception of smart mobile devices (SMD) and social networking services (SNS), key demographic and professional aspects were taken into consideration. Next, a detailed distribution based on the provided information and the common practices in this kind of research is presented.

Gender distribution:

- Male: 913 (34,3%)
- Female: 1,731 (65,1%)
- Do not specify: 15 (0,6%)

This distribution shows a larger number of female teachers, which is consistent with the general tendency in teaching in preschool, primary and secondary levels in Spain.

Age distribution:

- Younger than 30 years old: 316 (11,8%)
- Between 31 and 50 years old: 1,599 (60,1%)
- Between 51 and 60 years old: 736 (27,7%)
- Older than 60 years old: 8 (0,3%)

The majority of participants were between 31 and 50 years old, which suggests a considerable professional experience in education.

Educational level distribution:

- Preschool: 220 (8,3%)
- Primary Education: 738 (27,8%)
- Secondary Education: 1,238 (46,6%)
- Other levels of education (including Vocational Training and Special Education): 457 (17,2%)
- Do not specify: 6 (0,2%)

Availability of devices and presence on social media distribution:

- An SMD device: 394 (14,8%)
- Several SMD devices: 2,265 (85,1%)
- Presence on a SNS: 658 (24,7%)
- Presence on several SNS: 2,004 (75,3%)

Most teachers reported having access to several smart mobile devices and being present on multiple social networking services, indicating high digital connectivity and familiarity with these technologies.

For the recompilation of data, the *CURSAE* (a questionnaire about the utility of social media and smartphones in education) (Fandos et al., 2021), designed specifically for this study) was used. This questionnaire consists of 28 items distributed in three main sections: sociodemographic information about the teacher, availability and use of technological resources and perceptions of the educational utility of SMD and SNS. The answers to those items related to perceptions were organised following the Likert scale, which varied from “totally disagree” to “totally agree.”

To guarantee the validity of the *CURSAE*, several steps were followed. Initially, the questionnaire was the subject of a revision by experts in educational technology, psychometry and methodology of education research. This panel of experts evaluated the relevance and clarity of the items and provided recommendations for their adjustment. Later, a pilot test with a small group of teachers was carried out. The compiled feedback allowed us to make final

adjustments to the items' redaction and the questionnaire's structure, thus improving the validity of its content.

*CURSAE*'s reliability was evaluated through Cronbach's alpha, which measures the internal consistency of the items within each section of the questionnaire. The obtained values were higher than the acceptable threshold of 0,70 for social sciences studies, which indicates good reliability. Furthermore, an analysis of the items of each section was carried out, examining the correlation of each item with the total punctuation of its section, which allows us to identify and exclude items that did not contribute significantly to the questionnaire's internal consistency.

To validate the questionnaire's structure and guarantee the construct validity, an Explorative Factorial Analysis (EFA) was carried out using half of the sample. This allows us to identify the latent factors that underlie the teachers' answers, providing evidence of the structural validity of the instrument. Later, a Confirmatory Factorial Analysis (CFA) was carried out with the other half of the sample to confirm the factorial structure identified, using markers of adjustment of the model such as the Comparative Fit Index (CFI) and the Root Mean Square Error of Approximation (RMSEA).

To deepen the instrument's validity, convergent and discriminant validity tests were carried out. Convergent validity was evaluated by examining the factorial charge and the Average Variance Extracted (AVE) for each factor, whilst discriminant validity was established by comparing the AVE with the squared correlations between factors. These analyses guaranteed that each factor measured effectively the desired construct and that factors were different.

Besides these measures, each stage of the designing and execution of the study was carried out attentively to minimise possible errors. This included the standardisation of the process of recompilation of data and the training of the involved researchers in the administration of the questionnaire.

Overall, these methodological steps and employed validity and reliability measures contributed significantly to the quality and credibility of the study, allowing the derived findings and conclusions to be robust and reliable.

### **III. Analysis and procedures system**

The compilation of data was made in an online platform, accessible through a link distributed to the potential participants. Before starting the questionnaire, participants were given information about the aims of the study, the estimation of answering time and the guarantee of anonymity and confidentiality. The informed consent of all the participants was obtained. The questionnaire's administration was made during a three month period, and periodic reminders were sent to increase the answering rate.

The analysis of the data was conducted using the statistical software SPSS and multivariate analysis techniques. Firstly, a descriptive analysis was carried out to characterise the sample in demographic variables and availability of technological resources terms. Subsequently, the exploratory factor analysis (EFA) was used to analyse the underlying structure of perceptions about the educational utility of SMT and SNS. To evaluate the influence of independent

variables over teachers' perceptions, multiple linear regression models were employed, identifying significant predictive factors.

This study was carried out following strict ethical considerations, including participants' anonymity, informed consent and the right to step out of the study at any moment. The protocol of investigation was examined and approved by an institutional ethic committee.

The methodology described provides a rigorous framework to investigate perceptions and factors that have influence over the use of digital technologies by teachers. This brings valuable insights for the designing of policies and teacher formation programs focused on effective integration of technology to education.

#### **IV. Results**

The analysis of teachers' general perceptions about the educational utility of intelligent mobile devices (SMT) and social networks (SNS) revealed predominant positive attitudes. 75% of the participants (approximately 1,994 teachers) agreed that SMT and SNS can be valuable tools to enrich the teaching and learning process.

##### **4.1. Demographic variables influence:**

According to age: positive perception of SMT and SNS utility decreases with teachers' age. While 85% of teachers under 30 see these technologies as highly beneficial, this percentage drops to 60% in teachers above 50.

According to gender: 78% of feminine teachers see SMT and SNS as useful for educational purposes, compared to the 72% of masculine teachers. This difference suggests a higher tendency of feminine teachers to the pedagogical use of digital technologies.

##### **4.2. Educational level influence**

In agreement with the results, teachers of lower educational levels (like primary education) tend to value SMT and SNS more positively for educational purposes compared to teachers of higher educational levels (like secondary education). This could be related to the content's nature and the teaching methodologies adapted to different age groups.

The utility perception changed according to the educational level. In preschool teachers' case, 80% of answers were positioned in a high utility perception, this decreases in primary school teachers' case, in which 78% of the answers perceive it as something of high utility; while in secondary school teachers' case, this perception drops ten points. 68% of survey respondents point out that these tools and means are of high utility for their task.

This tendency points out a higher reticence or confrontation of challenges in technological integration in higher educational levels.

##### **4.3. Technological resources availability**

Teachers with accessibility to various mobile devices and good connection in class reported a higher comfort level and a more positive perception about these technologies' educational utility (88%), compared to those with limited access (55%).

The availability of technological resources at home and at the school environment is a significant predictor of perception of SMT and SNS utility. Teachers who reported having access to multiple devices and a good internet connection in class perceived these technologies as more useful for education. This discovery highlights the importance of supplying appropriate technological infrastructure to ease the effective integration of digital technologies in the educational field.

#### 4.4. Presence in social networks

Active presence in social networks significantly correlates to positive perceptions about its educational utility. Active teachers on multiple platforms reported an 82% to SNS utility in education, facing 65% of those less active or without any presence in SNS.

Active presence of teachers in social networks was associated with a more positive perception of its educational utility. Teachers who used social networks for personal and professional purposes tended to value more positively the educational potential of these platforms. This result suggests that familiarity and personal experience with SNS can influence how teachers perceive and take advantage of these tools in educational contexts.

#### 4.5. Implications for educational practice

Teachers that had participated in recent training about educational technology reported a more positive perception on SMT and SNS (90%), compared to those without recent training (62%).

The discoveries of this study have important implications for the design of politics and programs of teacher training. They highlight the necessity to consider the individual characteristics of teachers, such as their age, gender and educational level, when promoting the use of digital technologies in education. Moreover, they highlight the importance of improving technological resources availability in schools and to encourage an active participation culture in social networks between teachers to increase the educational benefits of SMT and SNS.

## V. Discussion

The integration of intelligent mobile devices (SMT) and social networks (SNS) in the non-university educational context sets out various critical considerations related to teachers' perception about its utility. This discussion enriches when we connect our discoveries with relevant theories and studies in the educational technology field.

The discoveries of this study, which show variations in the perception of SMT and SNS utility based on demographic varieties and resources availability, align with the Technology Acceptance Model (TAM) proposed by Davis (1989). The TAM suggests that the perception of utility and facility of use are significant predictors of the acceptance and use of a new technology. In this context, the fact that younger teachers and those with more access to technological resources perceive more educational utility of SMT and SNS relates directly with TAM 's premises. This highlights the importance of considering teachers' personal experiences and technological competence when encouraging the technological integration in education (Venkatesh et al., 2003). This way, technological resources availability emerges as a critical factor, corroborating the Diffusion of Innovations theory by Rogers (2003), that

suggests that access to technology is a prior requisite to its adoption. In this sense, the study reflects the necessity to provide education centres with the necessary resources to ease an effective integration of SMT and SNS. Demographic varieties' effect in teachers' perception of SMT and SNS highlights the relevance of the discoveries cited by Rogers (2003). According to this author, individual characteristics, including the willingness to innovate, have a significant influence in the adoption of new technologies. Teachers who identify themselves as "innovative" or "early adopters," characteristics that can be more present in younger teachers or in those who are active in social networks, could be more inclined to integrate SMT and SNS in their teaching task.

The challenges of the effective integration of SMT and SNS in class highlight the necessity of a directed teacher and clear support politics training. Ertmer and Ottenbreit-Leftwich (2010) argue that the barriers for technological integration are not only of technological nature, but they are also pedagogical and of beliefs. Therefore, teachers' training should address technological knowledge as well as the pedagogical one, promoting teaching practices that effectively integrate these digital tools in learning processes. The study evidences that teachers with recent educational technology training have more positive perceptions about SMT and SNS's utility, highlighting the necessity of continuous professional development programs that address technological knowledge as well as the pedagogical one.

SMT and SNS integration in education is not only about overcoming the technological and perception barriers, but also about reconsidering the pedagogical practices to take advantage of the educational potential of these tools. As Mishra and Koehler (2006) suggest with their TPACK (Technological Pedagogical Content Knowledge) Theory, it is crucial that teachers develop an integrated comprehension of how technology can be useful to improve teaching and learning in their specific disciplines. Our discoveries also echo Mishra and Koehler (2006) and their TPACK Theory, emphasising that, for an effective technological integration, teachers should develop a profound knowledge that integrates technology, pedagogy and content in a cohesive way. This implies a continuous reflection about teaching practice and the searching of innovative strategies that align content, pedagogy and technology.

## **VI. Conclusions**

The integration of SMT and SNS in non-university education in Spain has a complex panorama influenced by personal, pedagogical and technological factors. Teacher training emerges as a fundamental pillar to overcome attitude and pedagogical barriers, easing a positive perception of these technologies' utility. To progress to an effective adoption of ICT in class, it is crucial to consider the dynamic interaction between technology, pedagogy and content, promoting educational practices that are in tune with XXI century's demands.

The incorporation of SMT and SNS in non-university education in Spain is not only a natural answer to students' digital immersion, but also a pedagogical strategy that opens up doors to a more personalised, collaborative and in tune with XXI century's competencies learning. These arguments, supported by current investigations, highlight the necessity and the opportunity of integrating these technologies in an effective way in the educational field, preparing students for the future's challenges and opportunities.

This way, the road to educational transformation by technology goes through, not only overcoming the initial resistances, but also cultivating innovative pedagogical practices that capitalise on the potential of these tools to enrich the educational process.

The present study is tied to limitations that should be tackled in future investigations. The future investigations should focus on analysing how diverse factors affect teachers' perceptions and beliefs regarding the use of intelligent mobile devices (SMT) and social networks (SNS) inside and outside of class, aiming to mitigate these negative attitudes and encouraging a more positive vision among teachers. It could be equally valuable to incorporate teachers' perspectives through qualitative methods that complement the quantitative analysis, providing a more profound and detailed understanding. The use of interviews, for example, would allow us to explore more deeply how teachers perceive the use of social networks, their attitude towards technology in general, and their vision about learning in technologically enriched educational environments. Future investigations could also evaluate how variations in educational level and taught disciplines, especially in secondary education, as well as regional differences, could influence the results of this study and reveal significant variations in the quantitative discoveries obtained .

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## Chapter 5. Transforming Education in the 21st Century: Educational Innovation in the Socio-Emotional Domain

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### I. Contextualization of the Concept of Innovation

Currently, innovation encompasses everything related to improvement and the development of participatory democracy within schools. This includes practices and curricular materials aimed at implementing an education system committed to and driven by innovation.

According to Carbonell (2001), schools are not merely spaces for reproducing social relations and dominant values but also arenas for confrontation and resistance where alternative innovative projects can emerge. Today, what we understand as teaching practice has evolved from being a simple transmission of knowledge to an activity rooted in reflection and analysis by both educators and students. Educational innovation begins as a creative idea for change, aiming to optimize and enhance competencies within and through education (Palacios Núñez et al., 2021).

To contextualize the semantics of innovation, we must return to its Latin origin, *innovatio*, built from the root *-nov-* (meaning "new") and the prefix *in-* (meaning "inside" or "within"). Innovation, therefore, involves introducing something new into an existing reality, whether by bringing it from outside or generating it from within the same reality. This implies that innovation may represent an improvement in some cases, but not necessarily in others (Tello, 2014).

Similarly, Rivas (2000) defines innovation as "the incorporation of something new into an existing reality, whereby this reality is modified."

Various degrees of transformation can occur in education, often intertwined with related concepts.

**Creativity and Innovation.** Creativity is described as a complex mental process involving attitudes, combinations, originality, and play to create something new from existing elements (Esquivias and Muriá, 2001). De la Torre expands on this, stating that creativity is "a human capacity to generate new ideas and communicate them," making it a prerequisite for change and innovation. However, as Ríos and Reinoso (2008) point out, creativity alone cannot provoke change or innovation; it requires systematic elements to organize creative thinking and develop new scenarios through a deliberate and organized process. Thus, creativity drives the innovation process.

**Change.** "Change" refers to an imprecise and general process often strongly associated with innovation. While many authors use the terms interchangeably, they have distinct meanings. According to Murillo (2002), change refers to any modification in the educational reality. It can be deliberate or spontaneous, occur at macro or micro levels, and manifest as both a process

and a result. González and Escudero (1987) further conceptualize educational change as a broad concept encompassing innovation, renewal, and development.

**Reform.** Pozuelos (2000) highlights that reform is a more consensual term. It refers to a top-down change initiated by administrations that impacts the structure, organization, and objectives of the educational system. Reforms involve intentional planning to address specific needs through strategic measures, transitioning from an outdated state to an improved one (Rivas, 2000; Triviño, 2014).

**Improvement.** "Improvement" often refers to specific forms of change with a focus on quality. It implies a value judgment, comparing the change with the prior situation. Hopkins et al. (1994) propose a definition centered on student outcomes, emphasizing progress as the core of educational goals for students, teachers, and institutions.

**Innovative Experiences.** Pozuelos (2000) emphasizes the importance of *innovative experiences*, a term often used in the context of educational change. These experiences can be considered the "seeds" of innovation, which may or may not grow into full-fledged innovations (Triviño, 2014).

Innovation is a motivated action, driven either internally or externally within a school, aiming for change, improvement, or transformation. Creativity plays a crucial role in this process. The result of innovation is not merely replacing one model with another but fostering evolution and progress that remains open to future improvements.

## II. Educational Innovation and Innovation in Education

In education, innovation is defined as "the induction of functional changes in new ways of perceiving and addressing educational problems, oriented towards flexible adaptation, experimentation, and guided change" (Rincón-Ussa et al., 2020, p. 21). Similarly, Mykhailyshyn et al. (2018) describe educational innovation as any new activity aimed at providing solutions that ensure the development and alignment of educational organizations. Educational innovation involves addressing emerging needs and problems in education, aiming to improve processes and satisfy all stakeholders involved, including students, parents, educators, researchers, and policymakers (Serdyukov, 2017).

The impact of educational innovation can be measured at three levels. At the first level, adjustments are made to processes; some skeptics argue that this does not constitute innovation but contributes to optimizing innovation in the long term. At the second level, significant changes occur, such as autonomous schools or blended learning. Finally, at the third level, we find far-reaching transformations such as networked, mobile, or online learning (Serdyukov, 2017).

Currently, educational innovations often face challenges in achieving widespread dissemination (Rees et al., 2019). This issue arises for various reasons, such as teachers perceiving proposed innovations as impractical or misaligned with current practices.

Rogers (2003) outlines four key steps in the diffusion of innovation theory that can help address these challenges:

1. Awareness of the innovation.
2. Recognizing that the innovation meets specific needs.
3. Adoption of the innovation.
4. Positive evaluation of the innovation after implementation.

Effective innovation requires prior research to optimize teaching and learning processes. Research and innovation harmonize two essential components of the teaching role: investigating and teaching. However, teaching often receives more attention and recognition to the detriment of research (Del Río-Fernández, 2021).

An example of an active teacher-researcher is their use of pedagogical practice as a research tool. As noted by Del Río-Fernández (2021), teacher-researchers employed the Lesson Study method as a collaborative learning strategy to reflect on their pedagogical practices. Lesson Study involves "a team of teachers collaboratively designing, implementing, analyzing, and revising a lesson" (Del Río-Fernández, 2021, p. 172).

Another challenge related to educational innovation is its sustainability. Rikkerink et al. (2026) note that many educational innovations begin with enthusiasm from teachers but often fade from practice over time.

In contrast, innovation in education is critical due to its profound impact on the social and economic well-being of a country's citizens. As noted in a report by the Organization for Economic Cooperation and Development, there is increasing global pressure to enhance equality and improve the quality of education (Serdyukov, 2017). Despite its crucial societal role, education remains one of the most misunderstood areas and is often slow to adopt innovations (Serdyukov, 2017).

It is essential to distinguish between educational innovation and innovation in education (Rincón-Ussa et al., 2020). Innovation in education is a broader concept that includes educational innovations as well as innovations from various disciplines (scientific, economic, social, etc.). In contrast, educational innovation emphasizes the implementation of novel and original activities to optimize the efficiency of teaching and learning processes.

### **III. Research and Innovation in Socio-Emotional Education**

As previously contextualized, innovation requires a foundation of research. Without prior research, innovation would not be fruitful, as it is essential to analyze the needs and realities of the context in which we aim to intervene to implement the desired improvements effectively.

This research focuses on a branch of education that often receives insufficient attention, is undervalued, and considered less critical: socio-emotional education. Yet, it is one of the fundamental pillars that support personal development and character formation.

Socio-emotional education is grounded in a comprehensive theoretical framework analyzed from a fully integrative perspective, ensuring that formative actions are as efficient as possible (Bisquerra Alzina & Chao Rebolledo, 2020). One of the most critical components of socio-emotional education is emotional intelligence (EI), which is supported by various models and research that underline its evolutionary nature and educational potential (Fernández-Berrocal & Rosario Cabello, 2020). Students tend to process and retain knowledge more effectively when objectives are clearly established, improving their behavior and emotional management. This fosters positive relationships within the school environment, contributing to their present and future well-being (Wang et al., 2019).

Interpersonal competencies refer to the ability to empathize with others' emotions, understand social and ethical norms, and maintain healthy and positive social relationships (e.g., offering help, negotiation, cooperation). They also encompass the ability to make constructive and respectful decisions based on established social norms and values (Humphrey et al., 2018).

For this reason, schools are perceived by students as safe spaces where they can develop holistically, integrating various dimensions—academic, psychological, transversal, and more (Bisquerra & Hernández, 2017).

Emotional intelligence is structured around four dimensions that contribute to its complex definition and application (Mayer et al., 2016):

- **Perception and expression of emotions:** This dimension involves the ability to identify one's emotions and those of others, utilizing attention to decode various verbal or auditory expressions.
- **Facilitation of thinking:** Emotions directly influence cognitive processes. They facilitate cognitive processing by drawing on implicit information from previous experiences to evaluate current situations.
- **Emotional understanding:** This dimension is based on comprehending and reasoning about the relationship between emotions, the context, and the progression or simultaneity of feelings.
- **Emotional regulation:** The most complex of the four dimensions, it involves the ability to regulate emotions effectively, which largely depends on mastering the preceding dimensions. Emotional regulation requires openness to experiencing both pleasant and unpleasant emotions.

Numerous studies highlight the significant benefits of socio-emotional education for students. Unfortunately, in some schools, it is viewed as an unnecessary luxury or a time-wasting practice that might hinder the achievement of academic objectives (Bisquerra, 2016; Fernández-Berrocal, 2018). However, key benefits include:

- **From Health to Happiness:** Research has consistently shown that individuals who are emotionally intelligent and mature enjoy excellent physical and mental health. Emotional intelligence (EI) helps individuals adapt to the demands of daily life and facilitates the pursuit of positive emotions, leading to improved well-being and personal happiness (Sánchez-Álvarez, Extremera & Fernández-Berrocal, 2015).

- **Aggressiveness and School Coexistence:** EI plays a critical role in the development of empathetic and tolerant behaviors among peers. There is an inverse relationship between EI and aggressive behaviors—students with higher EI and socio-emotional education exhibit fewer aggressive behaviors (Gutiérrez-Cobo, Cabello & Fernández-Berrocal, 2017).
- **Academic Performance and Success:** Students with higher emotional intelligence tend to achieve better academic outcomes. This occurs because emotionally intelligent students are better at managing their emotions, particularly unpleasant ones like disappointment or anxiety. By mitigating these negative feelings that can hinder academic performance, they achieve better results and maintain healthier relationships with teachers and classmates (MacCann et al., 2020).

To enhance socio-emotional education, various activities and techniques can be implemented, such as:

- **Emotion Tree:** Students create a tree on the classroom wall, with each leaf representing an emotion. Students can add leaves describing situations that made them feel those emotions.
  - **Objective:** Identify and express emotions.
- **Emotional Diary:** Students keep a small diary where they reflect on their emotions and experiences, explaining how they managed those emotions and situations.
  - **Objective:** Foster self-reflection and self-awareness.
- **Guided Meditation:** Dedicate a few minutes daily to guided relaxation techniques led by the teacher, including visualization exercises, deep breathing, and mindfulness practices.
  - **Objective:** Reduce stress and anxiety while promoting self-awareness.
- **Stories and Fables:** Read various stories and fables in class that address themes like empathy, happiness, sadness, cooperation, and honesty. Afterward, engage students in discussions on how these values and skills can be applied in real life.
  - **Objective:** Teach values and encourage reflection on behavior.

These activities not only help students develop emotional intelligence but also create a more inclusive and supportive school environment, fostering both personal growth and academic success.

#### IV. Socio-Emotional Education and Its Positive Approach

The optimistic perspective of socio-emotional education is grounded in the concept of positive mental health, which belongs to the area of psychosocial factors related to health promotion (subjective well-being, autonomy, competence, interdependence, and recognition of the ability to develop intellectually and emotionally) (WHO, 2004).

In today's world, global phenomena exert a significant influence and impact on individuals. The overwhelming presence of technology, unrestrained capitalism, economic conflicts between countries, and profound inequality marked by extreme poverty in many parts of the world (Bauman, 2008) create uncertainty and fear, often resulting in stress, anxiety, and depression. Depression, referred to as the "epidemic of the 21st century," is the leading cause of numerous deaths and illnesses, according to the WHO (2019).

As previously mentioned, the World Health Organization emphasizes the importance of mental health and well-being, which is often linked to happiness. The pursuit of happiness is considered the ultimate goal for human beings. While each person defines happiness differently, it is undeniable that happiness is associated with health (Álvarez Bolaños, 2020) and the experience of positive emotions that foster well-being.

Socio-emotional education is a holistic process that contributes to individuals' well-being. According to Davidson (2017), "learning well-being" involves developing emotional competencies that enable individuals to act effectively in various contexts. These competencies are rooted in self-awareness, the ability to recognize and overcome adversity, empathy to understand others, and social skills to interact and collaborate with others.

Currently, socio-emotional education is a recent educational innovation, with its theoretical foundations still under development. It draws from positive psychology, neuroscience findings, and contributions from the humanities. Although considered a new paradigm in education, it lacks a definitive theory of emotions, as emotions themselves are highly subjective and complex (Álvarez, 2020).

## **V. Conclusions**

Socio-emotional education focuses on developing specific skills to recognize, control, and manage both one's own emotions and those of others. As an educational innovation, it addresses social needs not adequately covered by formal education. The objectives of socio-emotional education include preventing increasingly common social issues, such as addictions, violence, suicide, sadness and anger management, depression, and more (Álvarez Bolaños, 2020).

Socio-emotional education should be approached from a socio-formative perspective, enabling the generalization of a methodology grounded in real-world contexts to address contemporary problems. It is a viable field that can be optimized through projects, as it is currently incorporated into the curriculum.

It is crucial for this socio-emotional training to originate from educators. Teachers must receive training in socio-emotional education and maintain their own well-being to effectively impart and foster the development of socio-emotional skills. This preparation is essential for addressing the social challenges and demands of the 21st century (Lara-Ávila, 2021).

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## Chapter 6. The academic, experiential, and transmedia journey in the context of tangible and intangible heritage

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### I. Introduction

Contemporary and future education, shaped by the trends and challenges of the digital age, demands the design of activities that blend the strengths of traditional methodologies with the potential of technological tools. In this context, academic visits, as a key pedagogical resource, can be transformed through the integration of digital elements that enhance and diversify practical experiences.

This chapter reflects on an academic visit to the town of Uncastillo (Zaragoza), where transmedia storytelling was implemented as a strategy to document and communicate the findings. Directed at Communication Studies students, this activity was conducted within the framework of the courses *Documentation* and *Contemporary Universal History*, fostering a learning experience that combined critical analysis with the application of digital competencies.

Through this hybrid approach, the aim was not only to enrich the students' academic training but also to prepare them to meet the demands of the professional world (documentation, critical thinking, use of technological resources, teamwork, decision-making, among others) and the challenges of a constantly evolving educational environment. This proposal exemplifies how traditional and digital methodologies can be effectively integrated to create innovative and relevant educational experiences in the digital era.

#### 1.1. Challenge-Based Learning

Challenge-Based Learning (CBL) is a student-centered educational methodology that promotes active learning through the resolution of real and relevant problems. Widely implemented in university practices (Álvarez & Roca, 2017; Fundación Telefónica, 2019; García & Rodríguez, 2019; Gilbert et al., 2018; Morales, 2017; Pérez & Jiménez, 2020), CBL involves students working in teams to address complex challenges, thereby developing a range of both technical and soft skills. This learning model continues to be analyzed and evaluated by researchers from various fields (Gutiérrez-Martínez et al., 2021; Leijon et al., 2022; Van Den Beemt et al., 2023).

CBL stands out as an innovative educational methodology that addresses the need to "integrate both critical thinking and critical action to tackle global and local challenges" (Leijon et al., 2022, p. 616). It moves beyond mere knowledge acquisition by engaging students in solving real-world problems, encouraging active and reflective participation that allows them to apply what they have learned in practical contexts. This approach aligns with the mission of educational institutions to equip students with key competencies, such as collaboration, critical thinking, and innovation, to meet the challenges of the modern world.

According to Nichols and Cator (2008), CBL offers a multidisciplinary strategy that engages students in real-world problem-solving using the technology they interact with daily. CBL is collaborative and practical, encouraging students to work alongside peers, teachers, and experts from their communities and beyond to formulate meaningful questions, deepen their knowledge, embrace and resolve challenges, take action, and share their experiences (Nichols & Cator, 2008, p. 1).

CBL's defining features include its ability to integrate research, interdisciplinarity, and a student-centered approach. As Blanco et al. (2017) point out, students in this environment are not only required to investigate and adopt solutions to complex problems but also to make critical decisions about the most appropriate paths to solve these challenges. Teachers assume the role of facilitators and collaborators, guiding the learning process and encouraging new ways of thinking, often incorporating the participation of external experts to provide valuable insights. This dynamic place the student at the center of the educational process, fostering deeper and more meaningful learning.

The challenges presented in CBL are framed through questions that spark students' interest and curiosity. These questions are designed to be engaging, prompting students to research, reflect, and apply their learning in the creation of a final product that showcases their investigative process and problem-solving skills. This not only promotes academic learning but also strengthens students' competencies by requiring them to apply their knowledge in pragmatic and realistic ways (Bustos Jiménez et al., 2019).

In the context of the best practices discussed in this article, related to the cultural heritage of Aragón, CBL is recognized by some researchers as a valid methodology for acquiring these competencies. According to Yáñez De Aldecoa and Gómez-Trigueros (2022), CBL connects students with the past to help them better understand the present while developing skills such as empathy, solidarity, and respect for other cultures. Using challenge-based strategies in this context not only promotes knowledge about heritage but also encourages students' participation in their cultural environment (Yáñez De Aldecoa & Gómez-Trigueros, 2022, p. 5).

## **1.2. Transmedia Storytelling and Literacy**

In education, transmedia storytelling and transmedia literacy are essential tools for narrating stories and creating content based on CBL experiences. These approaches integrate multimedia resources and encourage student participation. Transmedia storytelling is characterized by its flexibility and dynamism, allowing students to connect with content across various platforms. This multiplicity of media not only makes learning more accessible and engaging but also provides an inclusive and flexible educational approach.

Transmedia storytelling is defined as a communication strategy in which a story or content is developed and disseminated across multiple platforms and formats, encouraging active audience interaction and participation in meaning-making. This approach combines different media, such as videos, texts, social networks, and games, to offer an immersive and cohesive experience. According to Jenkins (2024), transmedia storytelling "represents a process where integral elements of a fiction get dispersed systematically across multiple delivery channels for the purpose of creating a unified and coordinated entertainment experience. Ideally, each medium makes its own unique contribution to the unfolding of the story" (p. X).

This strategy is particularly effective for presenting and disseminating content related to tangible and intangible heritage. By combining various formats and platforms, it provides a richer and more multifaceted representation of cultural heritage, integrating elements such as photographs, videos, digital recreations, and oral testimonies. This approach not only helps younger generations understand and appreciate cultural heritage but also promotes its preservation by encouraging community participation in its construction and transmission.

A key advantage of this method is the opportunity for students to create their own stories based on the knowledge they have gained and their personal experiences as learners. This process fosters knowledge ownership while developing critical skills such as analytical thinking, creativity, and problem-solving. As students craft their narratives, they reinterpret and enhance the content learned, becoming active agents in their educational journey.

This approach aligns with constructivist educational theories, which view learning as an active process of knowledge construction. By transforming students from passive recipients to content creators, transmedia storytelling not only reinforces active learning methodologies but also enables students to explore their creativity and self-expression—essential skills in today's digital environment.

However, it is essential to recognize that traditional active methodologies typically have a more linear structure and are less reliant on technology than transmedia storytelling, which fragments content and heavily depends on technological resources (Pérez-Martínez & Motis Dolader, 2018). This reliance can present challenges in educational settings with limited technological infrastructure. Despite these differences, the convergence of these strategies offers significant opportunities to transform and enrich the teaching-learning process, adapting it to the demands of the digital age.

The pedagogical foundations of transmedia storytelling strengthen its relevance in teaching practices. This approach promotes student participation in the creation, analysis, and curation of information—skills essential for learning in the digital era. It fosters dynamic interactions with content while preparing students to meet the challenges of an interconnected society where managing and creating information has become a key competency.

## II. Objectives

The objectives of this academic experience are outlined as follows:

- a) **Analyze** how an academic visit outside the classroom, using the Challenge-Based Learning methodology, contributes to the strengthening of university-level competencies.
- b) **Value** the tangible and intangible heritage of Aragón through a real-life experience, applying a scientific method.
- c) **Develop** critical thinking, curiosity in the face of challenges and questions, creativity, and teamwork.
- d) **Enhance** the interdisciplinarity of two core subjects in the Communication Studies curriculum: *Contemporary Universal History* and *Documentation*.

### III. Methodology

#### 3.1. Activity Development

As part of the *Documentation* and *Contemporary Universal History* courses, an academic visit to Uncastillo, a municipality in the province of Zaragoza, within the Cinco Villas region in the Autonomous Community of Aragón, Spain, was planned ([Uncastillo Tourism - History](#)). The primary goal of this teaching activity was to integrate documentation techniques with historical research methods and sources (Table 1).

**Table 1.**  
*Courses and Learning Outcomes.*

<b>Subjetc</b>	<b>Learning Outcomes</b>
Documentation	Identify the documentation needs of a specific communication product, the type of document capable of meeting those needs, and the documentary unit where it can be found.
	Search for and adequately select the necessary resources to document the professional production of content.
Contemporary Universal History	Apply and use historical research techniques, methods, and sources to accurately place events in time and space that have been significant in shaping the present.

Source: own elaboration.

The Challenge-Based Learning (CBL) methodology follows a structured process with preclusive stages. It begins with a grand idea and unfolds through the following steps: an essential question, a challenge, guiding questions, activities, resources, articulating and determining a solution, implementing the solution, reflection, evaluation, and publication (Nichols & Cator, 2008, p. 2).

Given the objectives of the activity, selecting a suitable location was crucial. The chosen site needed to possess significant, unique, and enduring heritage value while demonstrating effective management to generate both tangible and symbolic wealth for future communicators. Uncastillo (Zaragoza) met all these criteria, being a town declared a Historic-Artistic Monumental Complex in 1966.

For this purpose, contact was made with local guides from two institutions specializing in cultural heritage: the *Centro de Interpretación del Arte Sacro* (Church of San Martín) and the *Fundación Uncastillo El Románico*. The route, carefully designed by the professors leading the activity, was structured around key landmarks to balance content and time investment, ensuring student engagement without causing cognitive overload.

The journey began at the Church of Santa María, a Romanesque religious building renowned in Aragón for its sculptural decoration, constructed under the patronage of Ramiro II (1135–1155). Here, the students analyzed medieval daily life through the iconography and characters depicted on the church's portico. The tour continued to the Renaissance-style 16th-century Town Hall, influenced by Italian design. Students examined the symbolic meaning of the entryway and mythology, as well as the penal system of the time within its prison facilities.

Next, the group visited the Church of San Martín de Tours, consecrated in 1179 and renovated in 1557, offering insights into two significant historical moments. Inside, guided by an audiovisual presentation, students observed religious artifacts of the era and interacted with

them, as many were integral to the proposed challenges. This approach encouraged active observation, evaluation, and identification, moving students beyond passive spectatorship.

The tour then ascended to the Keep of the Fortress, the highest point in the town. As the group climbed to the crenellated terrace, they received interactive information about construction techniques and medieval warfare. Before descending, they explored the Gothic Palace of Peter IV, known as "the Ceremonious."

At the base of the hill, the tour concluded with visits to the Market Square, the Medieval Exchange (a 13th-century hospital), and the Church of San Miguel, now a congress hall and part of the *Fundación Uncastillo El Románico*. The foundation's representatives explained how heritage, when respectfully managed, can generate cultural and economic wealth. The visit ended with the Jewish Quarter and the recently excavated and restored synagogue, providing insights into the unique character of this confessional minority.

### 3.2. Challenges of the Visit

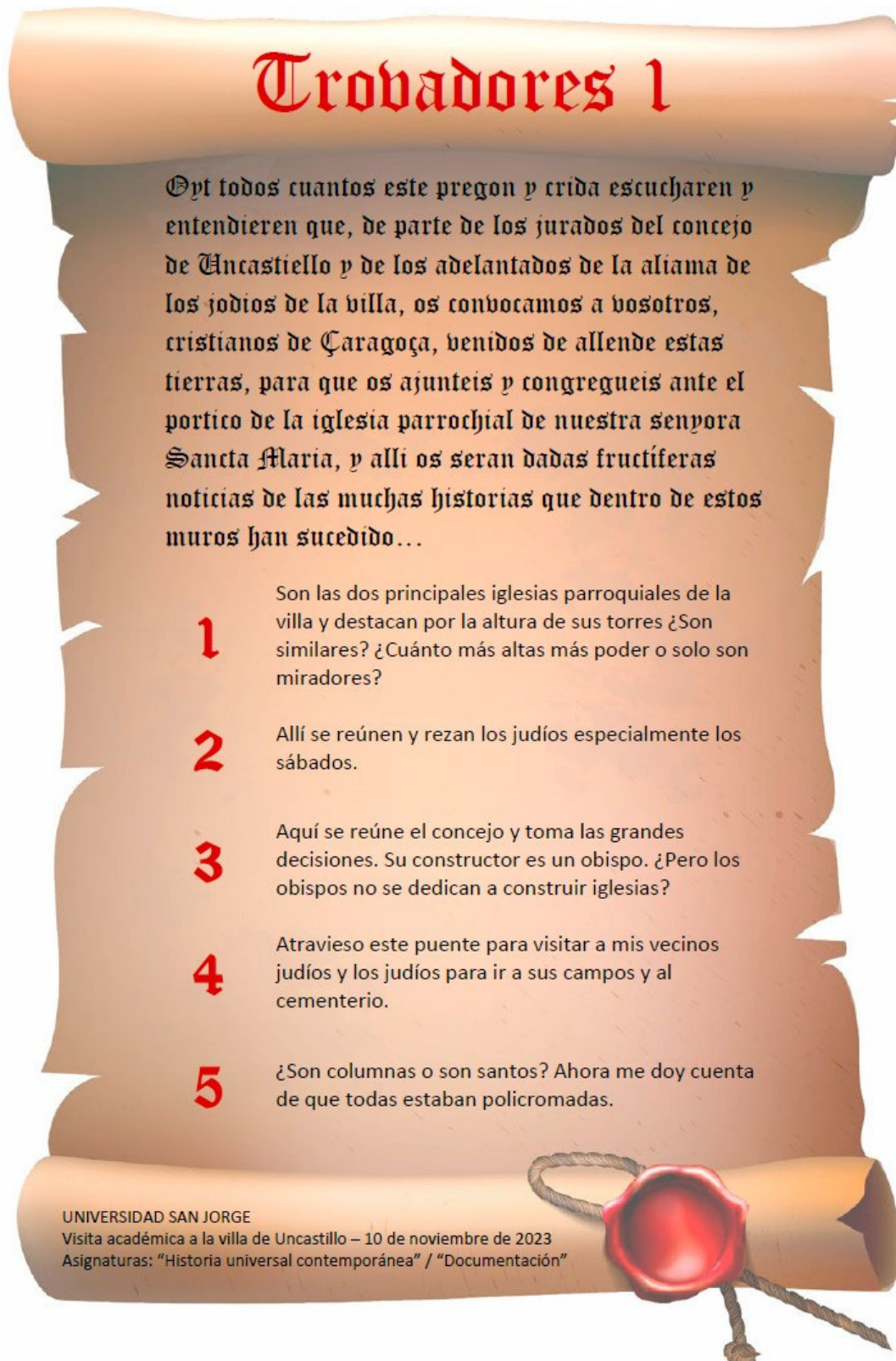
Students were divided into 14 teams, with seven teams designated as *troubadours* and the other seven as *minstrels*. Each team received a document (styled as a scroll) containing five challenges (Figure 1). The teams were tasked with identifying potential answers to questions, riddles, or puzzles. They had to visit specific locations, take photographs addressing the questions, and subsequently research the significance and relevance of their findings.

Throughout the guided tour led by the professors, detailed explanations of the tangible and intangible heritage of Uncastillo were provided.

As an immersive introduction, students were summoned in the style of a medieval council proclamation, adjusted for modern comprehension. The proclamation read as follows:

*Oyt todos cuantos este pregón y crida escucharen y entendieren que, de parte de los jurados del concejo de Uncastillo y de los adelantados de la aliamas de los jodios de la villa, os convocamos a vosotros, christianos de Çaragoça, venidos de allende estas tierras, para que os ajuntéis y congreguéis ante el pórtico de la iglesia parrochial de nuestra senyora Sancta María, y allí os serán dadas fructíferas noticias de las muchas historias que dentro de estos muros han acaecido...*

**Figure 1.**  
*Image of one of the documents provided to each team.*



Source: own elaboration.

## **Troubadour Challenges**

### **Team 1:**

- These are the two main parish churches in the town, notable for the height of their towers. Are they similar? Does greater height signify more power, or are they merely viewpoints?
- This is where the Jews gather and pray, especially on Saturdays.
- This is where the council gathers and makes significant decisions. Its builder was a bishop. But don't bishops typically build churches?
- I cross this bridge to visit my Jewish neighbors, and they cross it to reach their fields and cemetery.
- Are these columns, or do they represent saints? Now I realize they were once polychrome.

### **Team 3:**

- Are those stone figures staring at me? What stories might they tell after so many centuries?
- A river with barely any water and a well that always has water. Mysteries of fate.
- Bells aren't always located in church towers.
- Rods or "cubits" were used for measurement and placed in specific locations. Does that mean the meter didn't exist?
- Original gargoyles—shouldn't they be on rooftops? I'll take a selfie with them and try to determine their purpose. They resemble some I saw at the British Museum.
- They resemble some I saw at the British Museum.

### **Team 5:**

- These courtyards are decorated with river stones to prevent donkeys, mules, and horses from slipping. Why are they designed with geometric patterns made from river stones?
- I have some images for you: how did locals dress during this period?
- If a neighbor had a severe toothache and needed it extracted, where would a dentist be advertised in Uncastillo?
- What do Christian crosses symbolize in the heart of the Jewish Quarter? Shouldn't there be a Star of David instead?
- These cinema-like structures aren't medieval, but they do seem old. What stories do they hold?

**Team 8:**

- What are Christian crosses doing in the Jewish Quarter?
- Its view is spectacular, and its music elevates us to the heavens.
- Wow! Those musical instruments must have sounded amazing when finely tuned. I can almost hear the clapping and singing of the people!
- These are used to tell time, but they aren't mechanical clocks.
- Founding myths and legends? And what about those figures on the facade?

**Team 10:**

- Ecology isn't a modern invention. Did they "photograph" nature in their altarpieces?
- What a great idea! A Romanesque church converted into an auditorium. Were masses held here in its time?
- What an impressive choir! What's beneath the seats? Can I choose any spot, or is there a hierarchy where only clergy can sit?
- New Neighborhood or Old Neighborhood? What mystery lies there? Where does this name that identifies just one street come from?
- These are the two main parish churches in the town, notable for the height of their towers. Are they similar? Does greater height signify more power, or are they merely viewpoints?

**Team 12:**

- Stone logos? What role did the stonemasons' guilds play here? Could they be connected to Masonic lodges?
- Porticoes, fairs, and markets where Christians and Jews traded. A square for multicultural encounters.
- This is where the council gathers and makes significant decisions. Its builder was a bishop. But don't bishops typically build churches?
- It's the tallest tower of the castle, but I can't recall its name or purpose.
- At the "sinoga," as the Jews call the synagogue, there are two doors that are now closed. Were they for entry and exit, or did they serve another purpose?

**Team 13:**

- Stone logos? What role did the stonemasons' guilds play here? Could they be connected to Masonic lodges?
- Porticoes, fairs, and markets where Christians and Jews traded.

- This is where the council gathers and makes significant decisions. Its builder was a bishop. But don't bishops typically build churches?
- It's the tallest tower of the castle, but I can't recall its name or purpose.
- At the "sinoga," as the Jews call the synagogue, there are two doors that are now closed. Were they for entry and exit, or did they serve another purpose?

## **Minstrel Challenges**

### **Team 2:**

- This is where the Jews gather and pray, especially on Saturdays.
- Music and dance are not only heard and performed but also carved in stone. What rhythm they must have!
- New Neighborhood or Old Neighborhood? What mystery lies here? Where does this name that identifies just one street come from?
- This might have been where Jews were baptized in 1492, after the expulsion edict. That's quite a large baptismal font!
- Are these columns, or do they represent saints? Now I realize they were once polychrome.

### **Team 6:**

- These cinema-like structures aren't medieval, but they do seem old. What stories do they hold?
- Women carved in stone? Who are they, and what role did they play in society?
- Prodigious Latin books of great size—do they also serve for singing?
- So many arches and lintels amidst the stonework! Do the same families live there, or do they belong to different social categories?
- It's the tallest tower of the castle, but I can't recall its name or purpose.

### **Team 7:**

- These are used to tell time, but they aren't mechanical clocks.
- This church, now a museum, also had Jewish parishioners who paid a portion of their harvest as tithes.
- This is how we prepare armies; our weapons respond to the latest technologies.
- I focus on the windows to see and observe. Their styles are so varied. Who might live behind them?
- I am a sinner and wish to confess my sins to save my soul.

**Team 9:**

- Life isn't bad in these lands. Inside the castle, there's a palace with spacious halls and excellent heating.
- This is where the Jews gather and pray, especially on Saturdays.
- So many arches and lintels amidst the stonework! Do the same families live there, or do they belong to different social categories?
- I am a sinner and wish to confess my sins to save my soul.
- Wow! Those musical instruments must have sounded amazing when finely tuned. I can almost hear the clapping and singing of the people!

**Team 11:**

- Music and dance are not only heard and performed but also carved in stone. What rhythm they must have!
- Did Jews really enter their homes through here? It's so dark.
- What tools were used to construct this castle?
- Where were prisoners held and punished? Was conditional release an option? What about meals—just bread and water?
- Stone logos? What role did the stonemasons' guilds play here? Could they be connected to Masonic lodges?

**Team 14:**

- Founding myths and legends? And what about those figures on the facade?
- Pathways and alleys (or "gallizos," as they are called locally)—who passes through them? What do cubits and palms measure here?
- Ecology isn't a modern invention. Did they "photograph" nature in their altarpieces?
- Humor and satire carved in stone? How did they spend their leisure time?
- Without a doubt, merchants gathered under these arches. I wonder what goods they traded.

During the Uncastillo tour, students were required to take ten individual photographs reflecting answers to the clues assigned to their team. In a second phase, each team collaborated to create a photographic or audiovisual story using a maximum of ten photographs, with the clues serving as a narrative thread. This story, regardless of the chosen format, had to be substantiated with documentation and valid arguments, stemming from group reflection.

The complete process can be summarized in the following stages:

1. **Initial Teacher Narrative:** The teachers organized the strategy from the outset: defining the route, creating the clues to guide the tour, providing instructions, collaborating with the guides, and envisioning the narratives students would create.
2. **Guides' Explanatory Narrative:** During the activity, local guides provided explanations that complemented the experience and contextualized the clues.
3. **Students' Individual Narrative:** Each student took individual photographs, interpreting the clues through a personal lens and connecting them to their perspective.
4. **Group Narrative:** At the team level, students engaged in a collaborative decision-making process to select, organize, and construct a coherent story using their individual photographs.
5. **Story Construction:** This stage involved integrating the selected photographs into a photographic or audiovisual narrative supported by solid documentation and arguments.
6. **Personal Experience Presentation:** Finally, the teams presented their stories, showcasing the collective work and reflecting their individual learning experiences.

This carefully designed strategy, created by the teaching team from the beginning, combined elements of transmedia storytelling, collaborative learning, and academic grounding. It fostered creativity, teamwork, and critical analysis among the students.

### 3.3. Survey

The Likert scale used reflects the degree of disagreement or agreement with a series of statements related to the teaching practice conducted: 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), and 5 (strongly agree).

## IV. Results

The perception of the students (n = 55) regarding the teaching practice provided data that allow for an evaluation of the strengths, weaknesses, threats, and opportunities associated with the teaching practice.

**Table 2.**

*Students' perception of the organization of the activity.*

Ítem	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The activity carried out was interesting.	-	1,8	14,5	47,3	36,4
The organization of the activity was excellent.	1,8	3,6	16,4	34,5	43,6
The development of the activity exceeded my expectations.	1,8	9,1	20,0	47,3	21,8

Source: owl elaboration.

The general perception of the participants regarding the item "What is your overall evaluation of the activity?" was positive: the majority indicated being "agree" (61.8%) and "strongly agree" (27.3%). On a more specific level, the overall perception remained positive, though with nuances.

A first category of items relates to the activity and its organization (see Table 1). Regarding the statement "The activity carried out was interesting," the results were highly favorable. A significant majority expressed a positive opinion: 47.3% were "agree," and 36.4% were "strongly agree." The organization of the activity was also well-rated; most students evaluated the organization positively: 34.5% were "agree," and 43.6% were "strongly agree." These results highlight the positive assessment of the planning and execution of the activity.

Another set of items aimed to analyze the students' experience in the teaching practice (see Table 3).

**Table 3.**  
*Students' perception of the organization of the activity.*

Ítem	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I felt comfortable with the group assigned to me for photographing the clues in the activity.	7,3	7,3	14,5	34,5	36,4
The activity allowed me to learn things I did not know before.	-	-	12,7	34,5	52,7
The clues helped me discover information I was previously unaware of.	-	1,8	10,9	38,2	49,1
The clues enabled me to work collaboratively in a team.	3,7	11,1	18,5	42,6	24,1
The atmosphere created during the activity was positive.	-	-	7,4	22,2	70,4

Source: own elaboration.

Students' perceptions regarding their comfort with the assigned groups for the photographic activity showed varied results. A total of 7.3% indicated being "strongly disagree" and another 7.3% "disagree," while 14.5% remained neutral. However, 34.5% were "agree" and 36.4% "strongly agree." This distribution reflects the fact that the groups were randomly formed, mixing students from the two classes to encourage greater interaction.

Regarding knowledge acquisition, the statement "*the activity allowed me to learn things I did not know before*" received positive feedback, with 34.5% of students "agree" and 52.7% "strongly agree."

The clues provided during the activity were also well-received. Most students found them favorable, with 38.2% "agree" and 49.1% "strongly agree" that the clues allowed them to discover previously unknown information.

Teamwork results were more dispersed. While 18.5% remained neutral, 42.6% were “agree” and 24.1% “strongly agree” that the clues enabled collaborative teamwork.

The statement “*The atmosphere created during the activity was positive*” emerged as one of the most appreciated elements, with no students expressing disagreement. Most students rated the atmosphere positively, with 22.2% “agree” and 70.4% “strongly agree.”

## V. Discussion

### 5.1. Strengths

The quantitative results align with the written contributions made by the students. The question posed—*What do you consider to be the strengths of this activity?*—elicited qualitative insights that can be categorized as follows:

- **Activity Organization:** Students highlighted the organization of the activity as a strength, emphasizing the importance of effective planning and execution. Some of their comments included: “*Good organization and a creative, effective way to make necessary learning more engaging,*” and “*Excellent organization of the various guides throughout the tour.*”
- **Knowledge Acquired:** The cultural heritage of Uncastillo effectively contributed to the educational objectives. Students appreciated the knowledge they gained about the history and culture of Uncastillo, demonstrating the activity's educational value: “*The new knowledge this activity allowed me to acquire,*” “*The curiosity I had about discovering Uncastillo's history,*” and “*The understanding gained about certain aspects of the Middle Ages.*”
- **Teaching Methodology:** The dynamic nature of the activity, including interactive and collaborative elements, was highly appreciated, adding interest and motivation: “*The fact that the activity was dynamic and straightforward,*” “*Teamwork, and in general that it was dynamic and entertaining,*” and “*The positive atmosphere.*” Teamwork played a crucial role in the teaching experience. Students highlighted the opportunity to collaborate and interact with classmates as a significant strength, emphasizing the importance of social and collaborative skills in learning: “*Learning to work in a team with people I didn't know on an unfamiliar topic,*” “*Teamwork to meet more people in my field; it was fun to search for clues,*” and “*Group unity during the task.*”

### 5.2. Improvement Proposals

Understanding students' perceptions of the activity and allowing them to freely propose improvements was essential for refining the experience and ensuring reciprocal learning.

- **Workgroups:** This aspect sparked considerable debate. Some students suggested that allowing them to choose their groups could enhance the dynamics of teamwork: “*Working with people from the same class to collaborate better,*” “*I'd propose letting students choose their group members,*” “*Forming our own groups,*” “*Being able to organize the groups ourselves.*”

- **Activity Dynamics:** Suggestions included incorporating more dynamic and interactive elements to sustain students' interest and attention: *"Make it more dynamic; the content is fine, but maybe it needs more attention-grabbing elements," "Add something more playful, perhaps a game for everyone," "Activities that allow more freedom of imagination or exploration to make it more entertaining."*

Additionally, some students emphasized the need for clearer and more detailed explanations of the content and activities, both before and during the visit. They also suggested extending the activity time for better information assimilation and a more relaxed experience. However, they acknowledged that the time was efficiently managed during the day, which concluded with a communal meal, avoiding cognitive overload.

## VI. Conclusions

Based on the academic results—evaluated through the portfolio submissions for both courses, which included photographs, brief content summaries, and documented sources—and the survey responses, it is evident that Challenge-Based Learning (CBL) is a highly effective methodology for several reasons.

First, it stimulates curiosity—a critical element for future critical citizens and Communication professionals—and encourages investigative skills through challenges that pose questions, placing students at the center of the learning process. Teachers serve as guides, supporting these explorations. Moreover, the integration of emotional and rational factors in the learning process fosters the assimilation of new, lasting, and meaningful knowledge.

The interdisciplinary approach, connecting the *Documentation* and *Contemporary Universal History* courses, challenges the notion of subjects as isolated silos, advocating instead for a holistic conception of knowledge.

All teams successfully completed the photographs and delivered their stories, meeting the activity's objectives. Students valued the opportunity to create new narratives from historical data and facts related to cultural heritage, enabling them to engage actively and creatively with the content. This exercise not only facilitated knowledge ownership but also emphasized the importance of working with accurate, verified data, enhancing essential critical thinking skills in academic and digital contexts.

Furthermore, the audiovisual and digital narratives produced by the teams expanded core messages from an innovative and collaborative perspective. These stories offered original insights, integrating cultural heritage with students' experiences and reflections, enriching the teaching-learning process. The activity demonstrated how transmedia storytelling tools effectively engage students in constructing meaningful content, fostering rigorous analysis and creative expression in an inclusive and dynamic educational environment.

The setting also played a crucial role. The concept of the classroom often limits teaching possibilities, while traveling broadens horizons. Teamwork and solidarity among members proved essential to achieving the set goals, addressing both professional and personal growth.

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## Chapter 7. Storytelling in Higher Education

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### I. Contextualization

In recent decades, the education delivered in classrooms across various educational levels requires a radical shift from traditional learning approaches. It necessitates the incorporation of teaching and learning strategies that foster active learning, positioning students as the main actors in their education. This transformation underscores the importance of professional development for educators, who must innovate pedagogical processes by leveraging technology and adopting disruptive and holistic evaluation methodologies. These methods aim to assess the level of competence development through activities that directly involve students.

Active learning provides an opportunity for sixth-semester students in the International Trade Bachelor's Degree program at the Faculty of Administration of the Benemérita Universidad Autónoma de Puebla (BUAP) to engage deeply and meaningfully in the development of competencies. This preparation equips them to face real-world scenarios and solve problems in the classroom through research, abstraction, discernment, and contextualization of information, leading to the construction of meaningful, in-depth, and high-quality knowledge that contributes to their comprehensive education.

Shifting paradigms from traditional learning to active learning enables students to participate creatively, become more aware of how they acquire knowledge, develop skills, and promote their own autonomy. This highlights the importance of discussing the soft skills essential for their professional development. Some of the soft skills that International Trade students at BUAP must develop from an academic, professional, and workplace perspective include the following:

**Table 1.**

*Soft Skills in Education.*

Competencies		Description
1	Effective Communication	The ability to express ideas clearly and precisely to communicate with others.
2	Listening Skills	The ability to understand what others are expressing.
3	Teamwork	The ability to work with others while respecting and listening to their viewpoints.
4	Critical Thinking	The ability to analyze, reflect, and question different perspectives.
5	Creative Thinking	The ability to create, modify, transform, and innovate.
6	Reflective Thinking	The ability to use knowledge and promote its application.
7	Resilience	The ability to respond positively to adversity.

Source: own elaboration.

Through active learning, students construct their own learning and strengthen the development of various skills, including soft, hard, technological, social, communicative, and even spiritual abilities. This approach allows them to connect knowledge with their own interests, fostering self-directed learning and time management. It enhances research, creativity, collaborative work, and inquiry, facilitating the conceptualization and organization of knowledge to solve problems in their environment and seize the opportunities offered by the business context for new professionals.

## **II. Higher Education: A Perspective for 2050**

The 2050 Agenda invites us to rethink the future from a holistic vision to understand the various possible scenarios with a broad, strategic, and global perspective, encouraging us to think beyond limits. The President of the Governing Council of UNESCO IESALC (2021) emphasizes that "Higher education has an important responsibility in managing these processes through its basic functions of generating and sharing knowledge" (p.4).

From the perspective of the 2050 Agenda, some critical aspects to consider include higher education for all, with a focus on students, knowledge organization, strengthening societal connections to create interconnections at multiple levels, promoting well-being, sustainability, and fostering intercultural and epistemic diversity.

The UNESCO IESALC report, based on a public consultation conducted between May and June 2021 in approximately 100 countries, presents insights on how higher education can contribute to a better future for all. Higher education plays a crucial role in individual empowerment, community development, societal progress, and global cohesion (p.25).

By 2050, higher education systems should expand access, provide quality educational experiences, and offer support services to prepare students for future realities (p.28).

According to Pedroza and Reyes (2022), higher education must respond to social demands, engage with society, and contribute to solving economic, social, and cultural problems. This requires creating dynamic learning environments and strengthening teacher professionalization. The constant innovation in science and technology necessitates implementing active learning strategies to develop soft, hard, and technological skills in future graduates, positively impacting the achievement of the 2030 and 2050 Agendas.

Globally, higher education must consider that scientific and technological innovations cannot act alone but require curricula aligned with future realities. These curricula should foster integral training to cultivate responsible citizenship in social contexts.

The **National Council for Humanities, Science, and Technology (Conahcyt)**, in its 2024 institutional program, specifies that higher education institutions must align with international guidelines and Mexico's government directives to contribute to societal well-being through science and technology.

**Article 3** of the Political Constitution of the United Mexican States establishes the state's obligation to provide educational services that are secular, free, mandatory, democratic, and of high quality for all Mexican citizens and residents.

The **General Education Law** articulates and guarantees compliance with Article 3. Article 47 of this law establishes that higher education includes undergraduate, specialization, master's, and doctoral degrees. It also encompasses teacher education in its various levels and specialties across in-person, distance, and hybrid modalities. Curricula should be student-centered, allowing for "better preparation of future leaders, thinkers, researchers, and minds who will improve the world in their way" (p.29), while "developing life skills (not only professional skills) and responsible citizenship (including fighting climate change)" (p.30) (UNESCO IESALC, 2021).

UNESCO (2021) highlights the urgent need to "organize knowledge in higher education, especially to train students to think independently, to be aware of diversity, to engage in dialogue among cultures and identities, and to apply their knowledge in any field, always aiming for the common good" (p.30).

Organizing knowledge with a student-centered approach requires professionalizing committed educators capable of creating learning environments that promote active, critical, transversal, and multidisciplinary learning through teaching techniques that encourage collaboration, research, self-management, and autonomous learning, along with the responsible use of artificial intelligence and digital information.

As a socialization process, education should contextualize programs and revisit identity values to foster cultural and behavioral awareness, enabling meaningful learning that positively impacts students' integral development. This approach supports social well-being, environmental stewardship, and critical, proactive responsibility, empowering students to think beyond limits.

## 2.1. Active learning

Active learning has long been recognized as a universal phenomenon present in all contexts. Most scholars agree that active learning involves constructing meaning from content. When individuals engage in practical, individual, or collaborative activities, they create scaffolds that enrich their knowledge according to their specific contexts.

Learning can occur anytime and anywhere. In the face of rapid scientific and technological advancements, there is a push for more personalized learning approaches and the development of highly sought-after soft skills. These skills enable students to continue learning flexibly, interdisciplinarily, accessibly, and permanently throughout their lives after completing studies, courses, or workshops.

According to Bermúdez (2001), learning is a universal process constructed according to the learner's circumstances and context. It occurs in any situation where one can draw from experiences embedded in objects, phenomena, and people around them.

Bruner (2001) defines learning as an active process that involves constructing meanings to interpret and understand the world. This process unfolds in three stages:

- **Enunciative stage:** Acquisition of new knowledge.
- **Operative stage:** Application of acquired knowledge.
- **Reflective stage:** Evaluation of learning.

Coll (2002) posits that learning is a process of constructing individual and internal knowledge. This process depends on cognitive capacities, motivational and emotional components, culture, and the learner’s context, fostering their development.

This underscores the need to incorporate innovative learning strategies using tools that help both students and educators identify the elements considered for evaluation. This approach engages students directly in the learning process and highlights their active role in the classroom.

Pimienta (2012) describes teaching-learning strategies as tools educators use to foster students’ competence development.

Valle et al. (1998) note that strategies involve sequences of activities, operations, or plans aimed at achieving learning objectives. These strategies are intentional and conscious, requiring students to make decisions during their learning process.

The hallmark of active learning is *learning by doing*. For instance, one can learn swimming techniques theoretically, but without practice, they won’t learn to swim. This contrasts with passive learning, which relies on listening, reading, and reproducing information.

Active learning enables students to give meaning to information, build cognitive scaffolds, create real-life experiences, and make decisions to solve real problems. It also allows them to apply knowledge in diverse contexts.

Freire (2006) emphasizes that knowledge is constructed. Hence, teacher training becomes crucial for fostering the necessary skills to promote effective learning, a culture of peace and non-violence, and inclusive, equitable, and quality education that positively impacts social development.

Active learning stimulates participants’ interest and motivation through play, sparking imagination, creativity, critical thinking, and interdisciplinary research. It allows students to learn at their own pace, manage their knowledge autonomously, and enhance collaborative work, self-assessment, peer assessment, and external evaluation.

Dynamic in nature, active learning empowers students to classify, organize, understand, relate, contextualize, and apply information derived from their practical experiences. It also fosters social interaction, personal development, soft and hard skill acquisition, and the strengthening of values.

**Table 2.**  
*Characteristics of Active Learning.*

N.	Characteristics
1	The student is at the center of the learning process.
2	Action is required to internalize information.
3	It demands greater effort from the student.
4	It enhances students' emotional skills.
5	More knowledge is gained through its application.

Source: own elaboration.

Active learning encourages students to engage directly and personally with content through reading, writing, discussion, and reflection. In this case, we focus on storytelling—the art of

creating and narrating a story—as an active learning strategy implemented in the subject *International Commercial Contracting and Arbitration*. This was applied to three sections (a total of 135 students) of the sixth-semester *International Trade* program at the Faculty of Administration, BUAP. The activity aimed to describe, through a story or comic, the purpose of various international organizations and the arbitration processes used to resolve disputes in international commercial transactions. Conducted collaboratively, this activity allowed all students to participate in small groups, covering all the topics outlined in the syllabus.

Developing stories through storytelling is a strategy primarily implemented at preschool and primary levels. However, recent years have demonstrated its effectiveness in higher education as an educational resource that helps students actively construct cognitive scaffolds. This promotes the comprehensive development of future professionals and citizens contributing to sustainable social progress.

## 2.2. Storytelling

According to Vieira, D. (2020), storytelling is the art of creating, adapting, and narrating stories using specific elements—character, setting, conflict, and message—structured with a beginning, middle, and end.

In higher education, storytelling as a learning strategy enhances students' dialogical and critical capacity to create, communicate, and give meaning to theoretical information through a narrative. This results in experiential learning or "learning by doing."

Drafting stories as a learning strategy benefits both the writer and the listener. For the writer, it fosters understanding, imagination, and creativity. For the listener, it aids in identifying characters, their roles, and recreating scenarios and situations that arise in problem-solving contexts.

Additionally, storytelling improves attention, concentration, patience, listening, and speaking skills. It expands vocabulary, develops auditory and oral expression abilities, and nurtures critical thinking. By understanding the plot, students analyze scenarios, roles, and creative solutions, enabling informed decision-making.

According to Temporelli (2015), crafting a story creates a personal and unique message, generating perspectives that build meaningful learning, integrate values, and express emotions toward one's surroundings.

## III. Methodology

This research was conducted using a mixed-method approach, incorporating qualitative, quantitative, and action research methodologies, as this best suited the characteristics and needs of the study.

According to Fernández (2002), cited in Cadena et al. (2017), qualitative research aims to identify the deep nature of realities, their relationships, and dynamic structures. On the other hand, quantitative research focuses on determining the strength of associations or correlations between variables and generalizing findings to populations based on sample data.

Action research, as described by Vidal and Rivera (2007), is widely applied in current transformative processes to study, control, and achieve desired modifications in social environments. It serves as a valuable alternative within qualitative research methodologies, especially in academic settings where theory is strongly linked to practice.

As previously mentioned, the methodology for this research is mixed (qualitative and quantitative), relying on observation, data collection, data analysis, and statistical analysis. The research employed a mixed-method approach (deductive-inductive), starting with a general explanation of the topic, applying it to a specific case, and then validating it through specific analysis. This method allows for investigation, analysis, and reflection on the soft and hard skills of students in three sections of the *International Commercial Contracting and Arbitration* course, part of the sixth-semester *International Trade* program at BUAP's Faculty of Administration.

Additionally, students were asked to create a story or comic to explain course content using these techniques. The action research method implemented in the educational setting enabled students to learn through practice.

The following outlines the methodology for implementing storytelling in the three sections of the *International Commercial Contracting and Arbitration* course during the Spring 2024 semester:

1. **Strategy Design:** An active learning strategy based on storytelling and an evaluation instrument were developed.
2. **Introduction:** On the first day of class, the learning strategy, evaluation criteria, and expected outcomes were presented to the 135 students across the three sections.
3. **Contextualization:** The instructor used storytelling to contextualize the program's elements and structure, incorporating evaluation criteria and student activities.
4. **Engagement:** The instructor's story captured students' interest, motivating them to take ownership of their learning process.
5. **Team Formation:** Teams of five to six students were formed in each section. Each team was assigned an international organization to present its organizational structure (origin, objective, mission, vision, primary and secondary functions). Other teams presented the arbitration process for these international organizations. The collaborative effort facilitated achieving the course objectives and developing competencies.
6. **Guidance and Feedback:** Each team received a detailed table outlining the required information to integrate into their story. They were also given deadlines for submitting their scripts or outlines for review and feedback before creating their final story or comic. The provided tables specified the required information for teams presenting the organizational structure and arbitration processes of different international organizations. Checklists with evaluation criteria were also included for each assigned topic.

**Table 3.**

*Presentation on the Organizational Structure Information of Various International Organizations.*

Organization Name	Team Members
Origin	
Objective for its Creation	
Main Functions	
Secondary Functions	
Mission	
Vision	
Narrative for Developing the Story or Comic	
Sources Consulted (websites, printed books, digital articles, etc.)	

Source: own elaboration.

**Table 4.**

*Presentation on the arbitration process information of various international organizations.*

Name of the Organization:	Team Members:
Description of the Arbitration Process:	Treaties, Conventions, Agreements, or Laws Governing the Arbitration Process:
Report for Developing the Story or Comic	
Sources Consulted (Websites, Printed Books, Digital Articles, etc.)	

Source: own elaboration.

**Table 5.**

*Checklist to Evaluate the Information Presented by Students on the Organizational Structure of Different International Organizations.*

Criteria	Achieved	Partially Achieved	Not Achieved	Score
1. Describes the origin of the international organization, including: a) Year of establishment b) Members	1.4	0.7	0	
2. Objective for its creation: a) Presents the organization's objective b) Identifies actions derived from the organization's objective c) Explains actions derived from the organization's objective	1.4	0.7	0	
3. Funciones principales: a) menciona las funciones principales del organismo internacional b) Identifica en que ayudan o impactas dichas funciones en el ámbito internacional	1.4	0.7	0	
4. Secondary functions: a) Lists and mentions the secondary functions of the international organization b) Identifies the scope of these secondary functions	1.4	0.7	0	
5. Mission: a) Mentions the mission of the international organization b) Identifies the importance of the mission	1.4	0.7	0	
6. Vision: a) Mentions the vision of the international organization b) Identifies the importance of the vision	1.4	0.7	0	
7. Report: a) Reflects formality in the information b) Demonstrates writing that facilitates knowledge acquisition c) Structures logical thinking through the information d) Establishes personal criteria to present the topic	1.4	0.7	0	
<b>Total Points</b>	9.8	4.9	0	

Source: own elaboration.

**Table 6.**

*Checklist to Evaluate the Information Presented by Students on the Arbitration Process of Different International Organizations.*

Criteria	Achieved	Partially Achieved	Not Achieved	Score
1. Description of the international arbitration process, specifying: a) Mentions the steps of the arbitration process b) Describes each step of the arbitration process c) Identifies the application of the arbitration process d) Identifies to whom the arbitration process	5	2.5	0	

applied) identifica a quien aplica dicho proceso arbitral				
2. Treaties, conventions, agreements, or laws regulating the arbitration process: a) Identifies the law regulating the arbitration process b) Observes the steps of the arbitration process within the law c) Indicates to whom the arbitration process applies, as mentioned in the law	5	2.5	0	
<b>Total Points</b>	10	5	0	

Source: own elaboration.

#### IV. Results

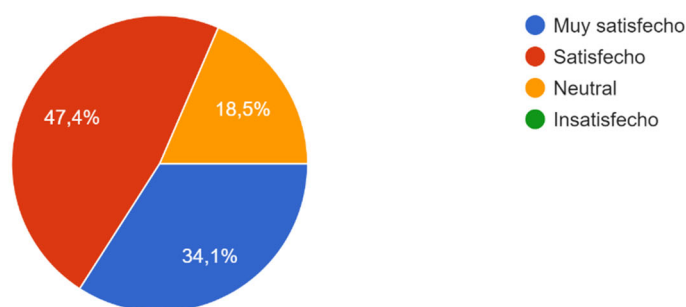
At the end of the activity, the students completed an exit survey consisting of 13 questions. These questions were designed to determine whether they had previously used storytelling as a learning strategy, if they would like to use it again, what soft skills they developed, among other topics, and included an open-ended question to gather their feelings about the activity. The survey was administered via a Google form, and the responses provided insights into the students' perspectives on this activity. The primary goal was to implement the storytelling strategy to promote active learning and strengthen the development of soft skills that enable students to face the challenges of a globalized world.

Below is the information obtained from the exit survey, completed by 135 students from the three sections of the *International Commercial Contracting and Arbitration* course, part of the sixth semester of the *International Trade* program in the Faculty of Administration at BUAP.

**Figure 1.**

*Did you feel comfortable using storytelling to acquire knowledge and develop skills?*

135 respuestas



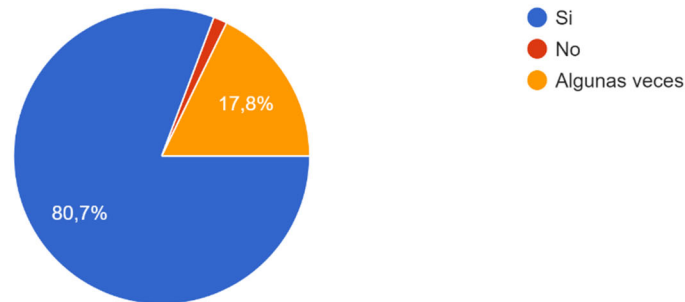
Source: own elaboration.

The graph shows that 47% of the students felt satisfied using storytelling to acquire knowledge and develop skills. However, it is interesting to note that 34% expressed feeling very satisfied with the implementation of this learning strategy in the classroom.

**Figure 2.**

*Do you believe that, through the development of the comic or story, you were able to gain greater knowledge about the origin, functions, mission, vision, and arbitration process of different international organizations?*

135 respuestas



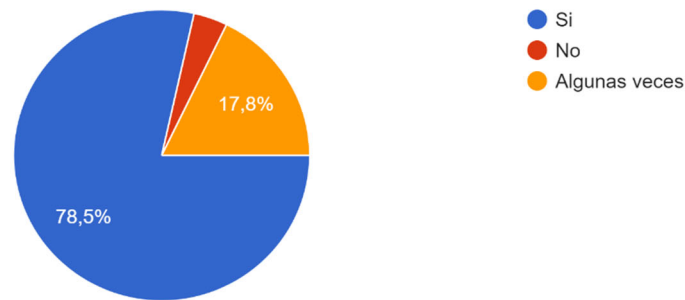
Source: own elaboration.

The graph shows that 81% of the students agreed that through the comic, story, or graphic narrative, they were able to gain greater knowledge about the origin, mission, vision, functions, and arbitration processes of various international organizations. Only 18% stated that they gained knowledge from some presentations but not from others.

**Figure 3.**

*Do you believe that through the story or comic you strengthened research, self-directed learning, and collaborative work?*

135 respuestas



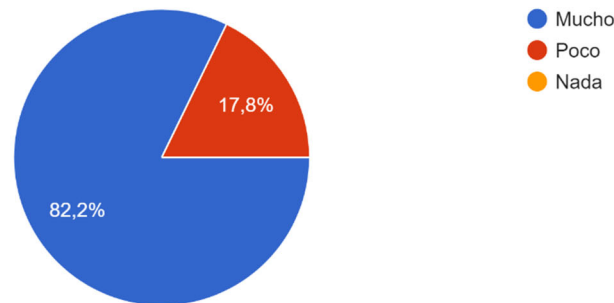
Source: own elaboration.

Through the story or comic, 78% of the students who responded to the exit survey believe they strengthened their research, self-directed learning, and collaborative work.

**Figure 4.**

*How much do you think this type of learning strategy (storytelling) in the classroom promotes your critical, creative, and reflective thinking?*

135 respuestas



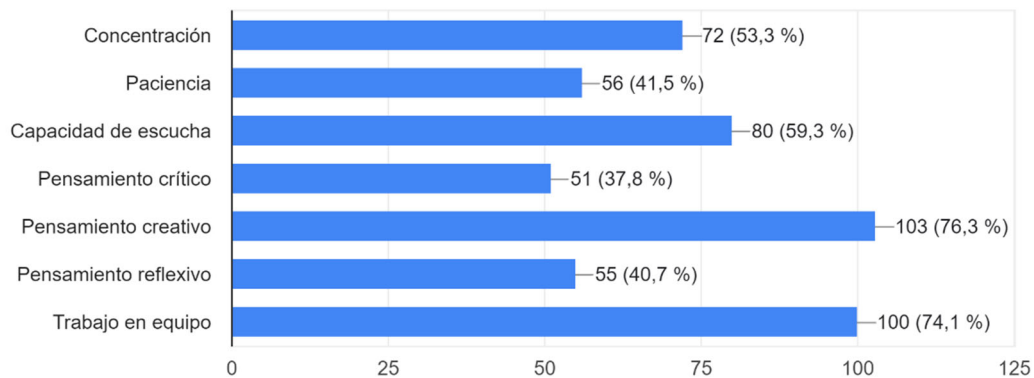
Source: own elaboration.

This figure shows that through the implementation of this type of strategy (storytelling), 82% of the students believe that it promotes the development of critical, creative, and reflective thinking—a soft skill that will be highly beneficial for the students in their professional careers.

**Figure 5.**

*Through observing the students' performance and analyzing their responses to question four of the questionnaire, it was identified that the students also developed the following skills:*

135 respuestas



Source: own elaboration.

The graph reflects high percentages that should be considered to highlight the importance of the support teachers must provide to students in strengthening a wide range of soft skills that will assist in decision-making within their surrounding context.

## V. Conclusions

Active learning is a strategy that encourages students to engage with knowledge. To strengthen this new way of learning, it is essential to break existing paradigms among educators, fostering gradual change for both teachers and students.

In the 21st century, traditional education practices still persist. Teachers often deliver lectures while students passively receive information, without actively engaging in the teaching-learning process. Many classrooms lack opportunities for students to interact with knowledge, aligning it with their diverse learning styles. This often leads to student demotivation and a lack of interest in learning within the classroom.

Implementing active strategies such as storytelling demonstrates its benefits in constructing cognitive frameworks and developing competencies that promote lifelong learning. It strengthens critical, creative, and reflective thinking, positively impacting the comprehensive education of future international trade professionals. These strategies equip students to solve problems, embrace challenges, and seize opportunities in response to societal demands.

The results of this research foster meaningful, deep, and high-quality learning while developing personal and professional competencies that are valuable throughout life.

An open-ended question in the exit survey allowed students to express their thoughts on learning through stories or comics. A summary of their responses includes:

- a) Students found that spending more time on the activity helped them remember details and information about the topic.
- b) They considered it a creative alternative to learning a wide range of subjects.
- c) The activity fostered idea generation, creativity, critical thinking, and reflective thinking.
- d) Teamwork enhanced empathy, collaboration, and camaraderie among classmates who were previously unfamiliar with each other.
- e) The approach developed numerous soft skills rarely addressed in traditional learning methods.
- f) A small percentage of students expressed discomfort with applying this new way of learning in the classroom, preferring traditional methods but remaining open to using storytelling in the future.

Based on these findings, this research paves the way for exploring new pedagogical strategies to integrate into classrooms, moving away from traditional education and promoting active learning where both students and teachers adapt to collaborative and engaging approaches.

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## **Chapter 8. The pedagogical diary as an innovative tool in the systematisation of the teaching practise**

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### **I. Teaching practise, analysis, reflection, and systematisation.**

The initial teacher training in Mexico is a task carried out by Normal Schools (NS). For over two decades, it has been interesting to closely follow along the path that they have gone down in teacher training, always striving to get the best professionals who meet not only the current educational needs, but those of a social kind as well. “Today, in a globalised and changing world, education and teachers are faced with new challenges. Therefore, it is essential to strengthen and transform Normal Schools in order to guarantee that they continue to serve as the backbone of teaching training in Mexico and that they are able to live up to the challenges of the XXI century.” (SEP, 2018, p.14)

In this historical course, a leading role is held by teachers in training. “In order to achieve it, it is necessary to place the teacher as a professional in education, with social acknowledgement from the community that calls knowledge forth and a transformative agent which accompanies the pupil in their formative careers.” (SEP, s. f., p.19)

It is important to mention that the last agreement –General provisions of the Syllabi and Curricula of the bachelor’s degrees for the training of basic education teachers– published on August 16th, 2022, by the Secretariat of Public Education defines the futurology and actions that will be developed in order to strengthen Normal Schools as the training institutions in the state for teachers in Mexico. As stated in the 3rd constitutional article, sixth paragraph, “Teachers are fundamental agents of the educational process and thus their contribution to social transformation is acknowledged, therefore, said strategy reclaims the figure of teachers and promotes their best practices.” (SEP, 2022a, p.2).

It should be pointed out that, from one Syllabus of teacher training in Mexico to another, significant changes can be perceived, mainly in the standpoint of the educational model and the organisation of curriculum maps. For example, the one concerning the 2018 Syllabus was formed by four formative routes: Formative Route 1. Theoretical and methodological bases for teaching; 2. Training for teaching and learning; 3. Professional practise; and 4. English Language. The curriculum map of the 2022 Syllabus is composed of five formative routes: Formative Route 1. Education basics; 2. Theoretical and methodological bases of the practise; 3. Professional practice and Pedagogical knowledge; 4. Pedagogical, didactic, and interdisciplinary training; and 5. Languages, communication systems and digital technologies.

For the development of this chapter, the highlight is placed on formative route number three about professional practice and pedagogical knowledge, which quotes:

This route, which has historically accompanied teacher training, has been defined as the linking and stirring route in this Syllabus and Curriculum. The route makes apparent that it is in real practise contexts where students display the pedagogical and disciplinary, heuristic and axiological knowledge that they are acquiring in the Normal School. (SEP, 2022b, p.17)

In this sense, it is relevant to mention, together with the changes that have taken place in basic education, the fact that teachers in training move in a dynamic manner towards an innovative teaching practise.

The dramatic changes which have taken place in learning communities during different educational reforms demand a redefinition of the role of the teacher in relation to the analysis, reflection, and systematisation of their professional improvement, as well as their initial training. These approaches compel us to ponder a series of questions which serve as the foundation to trigger the reflection about the kind of teaching practise that is currently introduced in pedagogical spaces of learning of phase two of basic education corresponding to preschool level. How have teachers been trained in the last decades? What kind of technical and methodological knowledge must a teacher have in order to deal with different problems in the school and social context? What kind of professional experiences are the future Early Childhood Education graduates required to analyse and go through in their training process in order to develop knowledge for their teaching intervention? Among many others.

There are countless pedagogical experiences in the professional lives of teachers; going back over them reveals that pedagogical work is highly enriching in everyday life. However, these experiences, once analysed, reflected upon, and systematised in a conscious and way and in a didactical and pedagogical manner, become significant pedagogical practises (Jiménez-Quintero, 2020, p. 70) which affect the formation of students in compulsory education and the impact of the transformation of the teaching intervention itself. Therefore, the curiosity to reconsider (improve – transform) our practises arise. (Santillana, et al, 2017).

For this reason, systematisation is defined by Marta Liliana Iovanovich in 2007 as the “orderly reconstruction and reevaluation of an experience lived through collectively in a particular educative process” (p.2). That is, it must be understood as an analytical and reflective process, as it implies looking back in a critical manner on the way in which the experience was lived versus the shared reality, striving to build a narrative from which it can be ordered and made sense of. It is with the pedagogical diary that we place it as a highly valuable, innovative tool. “Every systematisation proposal will lead to the dialectical comprehension of reality and its transformation, which is considered in order to systematically recover the analysis and critical reflection of the teaching practise.” (Iovanovich, 2007, p.5).

In his *Pedagogy of the Opressed*, Paulo Freire (1978) claims that reality and social practise are the foundation of learning when addressed with a critical sense, and that education must have a liberating dimension when oriented towards transformation. That is, a critical look on our teaching work implies getting actively involved in the teaching and learning process in order to not only serve as a mere knowledge transmitter, but also to promote the production of different citizens with critical and reflecting skills through our own teaching evaluation. The process of systematisation becomes a space of training and evaluation of the teaching

practise carried out too. Just like didactical planning, evaluation, monitoring and systematisation make up a series of elements which conform the didactical dimension (Iturbide, 2017) of the transformation of the teaching practise (Fierro et al., 2012) which allow for the consolidation and strengthening of teacher intervention

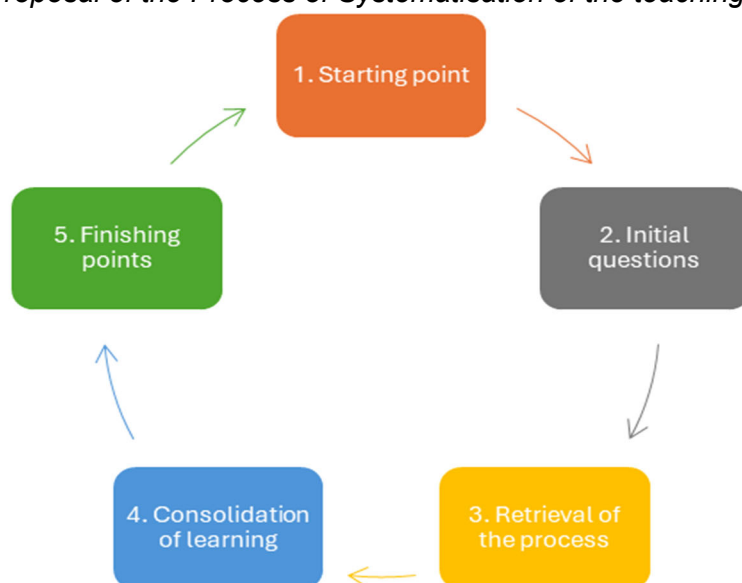
Oscar Jara suggests five stages for the systematisation of the teaching practise in his book *Theoretical and practical orientations* (2011, p.7), which are the following:

1. The beginning stage, that is, the choices that must be made before beginning the systematisation cycle, starting from the experience which is to be organised in order to decide the members, work strategy, data required as well as human and material actives that will be distributed when working.
2. The underlying inquiries which allow us to distinguish the accompanying parts of the cycle: The objective or objectives of the systematisation and the reflections for the change we are trying to bring about.
3. Retrieval of the experienced interaction: By redoing the set of experiences, requesting and arranging the data, just as the various rules dictate.
4. Putting together the examples conducted: What was the reason for which it happened? And how did it happen? Investigating and integrating the experience in order to recognise learned examples and suggestions.
5. Final standpoints: Compiling the systematisation report, sharing the examples that were learned and using the results to work.

Regarding the five stages for the systematisation of the teaching practise, Figure 1 may be consulted.

**Figure 1.**

*Methodological Proposal of the Process of Systematisation of the teaching practise.*



Source: own elaboration based on Jara (2011).

In the field of teacher training, not only do they stay within that data frame and the representation of its equivalent, but they are aimed to be reflected on a pedagogical diary, organised for the compilation of purposes and information about training which will act as an initial stage for other, much more extravagant encounters and, particularly, to transfer to different types of essays about training. Thus, it is understood that facts, which were carried out without telling anyone else, are recorded little by little in the pedagogical diary. In this sense, the pedagogical diary is used as an imaginative apparatus which enables the organisation of encounters and then helps examine the results in order to transform the teaching practise. In both cases (systematisation and socialisation) the need to reinforce the teachers' certainty to distinguish, perceive, and share their classroom activities to the creator of a teaching practise arises.

## **II. Pedagogical and didactic knowledge**

In the initial training of Preschool Education teachers, a fundamental link in the building of their teaching practise lies in the exercise of systematisation of their experiences which allows them to revise their knowledge and wisdom acquired in courses that make up the path of professional practise, this systematisation:

Promotes the reflection, analysis, and improvement of the teaching practise in the different stages which are written in curriculum maps. This way, it stirs up the production of pedagogical knowledge based on the use of different research methods, tools and devices from a qualitative-ethnographic approach, research-action and narratives based on the systematisation of experiences; it ensures the use of collecting techniques of information-observation, interview, teacher's diary, diagnoses, and surveys to focalise practise problems in order to strengthen their training, the development of their learning, the consolidation of their knowledge and teaching wisdom. (SEP, 2023a, parag. 4)

This way, a key aspect for novice teachers in their path through academic training is the "immersion process in the teaching practise which each student carries out in the different training stages with the reflection and production of knowledge and wisdom through ethnographic work, investigation-action (Latorre, 2013) and the systematisation of experiences" (SEP, 2022b, p.18). This allows to answer the varying questions such as: Which role does the recording of the teaching practise have? What difficulties does the critical reflection of the own practise entail? What are the problems that arise when answering opportunity areas? It is intended to answer some of the most relevant aspects which are to be identified in order to develop and increase the formative sense of the systematisation of the teaching practise. That is, society requires a bigger and bigger number of teachers trained in a view of education that enables the development of innovative suggestions in the face of social problems that interfere in the development of children. (Hermosilla, 2009, and Ander-Egg and Aguilar, 1998)

In this sense, the pedagogical diary "becomes a place for the creation and innovative application of knowledge in teaching and the systematisation of experiences" (SEP, 2022b, p.19) which will enable the analysis and reports that introduce and promote knowledge to strengthen the teaching practise, according to different contexts, forms of attention and learning needs of children, visualising the achievement of the following training objectives:

- Using research tools to document, analyse, and explain the teaching practise for its permanent transformation.
- Delving into the understanding of educational situations and problems in specific contexts.
- Analysing, preparing, organising, and conducting learning situations. (SEP, 2022b, p.19)

In this sense, “the pedagogical practise is considered a key aspect; it makes possible knowing the realities provided by education, linked with diverse aspects which are influenced by the context in which one is able to see, interact, and converse in the world through experiences” (Jiménez-Quintero, 2020, p.71). To achieve this, students need to achieve a performance that allows them to gradually develop innovative and meaningful pedagogical practises, which meet the needs of current educational scenarios and challenges.

Our interest is in the development of Fullan’s idea (2002), who considers the importance of understanding teaching as a purpose of transformation in which we answer with the same intensity both “what” and “how” we teach. That is, how the way of teaching is conditioned by the way in which the teacher understands education, and their methodological decisions stem from that understanding. (Mosston and Ashworth, 2001)

**Table 1.**

*Table of knowledge to be achieved through the systematisation of the pedagogical diary.*

<b>Pedagogical and didactical knowledge</b>	
Develop and apply globalising didactic plannings in the diverse contexts.	<ul style="list-style-type: none"> <li>• Plan their teaching intervention for different learning scenarios, respecting study plans and programs in force.</li> <li>• Suggest didactic strategies taking into account pedagogical orientations to use previous group knowledge and enrich the didactic transposition and children’s traits.</li> <li>• Build diversified learning situations supported by standpoints of gender equality, critical and decolonising interculturality.</li> <li>• Redesign strategies and activities from a humanist sense for the development of socioemotional skills.</li> </ul>
Revise and evaluate their teaching intervention in the different scopes and moments of the teaching task in order to transform and improve the processes of teaching and learning of preschool children.	<ul style="list-style-type: none"> <li>• Conduct a critical and transformative analysis of the own practise in order to generate a reflective teaching which reconsiders the advancement, progress, and areas of opportunity in each of their interventions.</li> <li>• Use different ways of recording for the monitoring of learning acquisition and development of abilities of each member of the group in attendance.</li> </ul>
Acknowledge educative research as a continuous and critical process which allows to recognise the processes of development, teaching, and learning	<ul style="list-style-type: none"> <li>• Apply methodological resources, techniques, and tools from educative research, with a gender approach, in order to improve the educative spaces,</li> </ul>

<p>as well as the sociocultural reality of children in order to make an appropriate intervention and provide experiences and reflections in the field of preschool education.</p>	<p>the families, and the community, applying it as raw material in their next teaching intervention.</p> <ul style="list-style-type: none"> <li>● Enrich the experiences of their teaching work through the results of educative research to further explore the knowledge and learning processes of preschool children.</li> <li>● Produce pedagogical knowledge through narration, problematisation, systematisation, and reflection of the own practise in the different scopes for their permanent improvement and innovation.</li> </ul>
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Source: own elaboration from the program of the pedagogical didactic intervention and teaching work course (pp. 9-10) to generate introduction, monitoring, and information retrieving strategies.

For this reason, it is valuable to provide guidance and accompaniment in order to retrieve the experience and new knowledge acquired once the teaching intervention has been carried out. “The pedagogical diary will serve to compile information about the school events, occurrences, happenings or circumstances which affect the development of the work inside the preschool classroom” (SEP, 2023b, p.23). Applying this tool enables the gradual acquisition of pedagogical and didactic knowledge in order to build an innovative practise and be able to focalise through each one of them the possibility of reevaluating or reconsidering the acquired knowledge, considering from the design and classroom intervention stage to the results obtained.

### III. The pedagogical diary

“The pedagogical diary is a personal writing, a method of account which records events, contemplations, and feelings which are highly meaningful or have importance for the creator, which makes it a valuable device for the teacher” (Porlán y Martín, 1999, p.30). In this specific situation, we have broken down and considered some creators who may help us trace the significance in the diary; among them is the teacher’s diary, in which appears a section about the diary as a tool to recognise themes and which makes ideas explicit. Furthermore, we refer to the compromises to emphasise the significance of the diary as an innovative tool in order to transform the teaching practise. We can recognise some ideas with which the different perspectives about a study room and its environmental factors –all of them bound to focus on opportunity areas– are changed in their compromises.

The pedagogical diary is an important active of qualitative exploration for teachers and students, as it allows them to have a thorough record of the main moments of the educative experience in the classroom. The pedagogical diary, as a subjective creative device, allows to keep a close connection between parts of the pedagogical activity and the theory with everyday activities, including reflective, intuitive, and hypothetical action of the information. In this sense, the effect of the hypothesis over its application can be distinguished. In summary, as Porlán y Martín (1999, p.17) points out, the possible objectives of the diary are:

- To compile significant data about the experience of teaching-learning;
- To compile verifiable information about the study room and the centre;

- To lean towards insightful attitudes of the teacher. To describe occasions, recognising problems.
- Critical reflection.

Likewise, Porlán suggests conducting the diary as a SWOT (Strengths, Weaknesses, Opportunities, and Threats), as it is a tool which enables this type of reflection with the chance of going beyond, which promotes a strategic approach; that is, it creates a diagnosis of the institutional circumstance while pushing the advancement of strategies to develop and improve in those circumstances forward. The SWOT analysis entails an assessment of the solid and weak variables which, combined, analyse what is going on in their own teaching practise.

For the SWOT, Thompson (1998) suggests in his article “SWOT analysis, a necessary tool” that a technique should fit into the internal (traits and shortcomings) and external (opportunities and threats) abilities of the organisation and that in that case a quick technique to tackle the challenge of change and transform an apparent danger into an opportunity may be put together. It is advisable, then, to commence as soon as possible and write up everything in order to never stop remembering any point of view that is important and relevant.

In this way, applicable classroom data are stored in the pedagogical diary. It is considered that significant learning has taken place when that which has been discovered is expected to make sense and be valuable, not to apply strategies and information in a redundant way exclusively, but most of all to tackle the treated questions, involving this information in environments that go beyond the academic and consolidating itself in the use of common sense in the everyday world, be it individual or professional.

For Molina (2019) “pedagogical diaries are given importance as they allow to establish a relation with the context that surrounds schools, to contribute to professional training, and as a deploying element of the teaching practise and the academic institution” (p.190). This new way of conducting the diary will no longer be a tedious and not exceptionally useful tool; on the contrary, it will allow to create a space to dissect the training and lean towards an essential activity which will affect the improvement of the growth experience and the change of the educational practise. The proposal contains a progression of perspectives which authorise a more complete analysis of the teacher’s performance through guiding words which work on the writing, occasionally addressing the most relevant aspects.

Although one of the main uses of the educative diary is to serve as a space to record significant data and moments for the school, this initial step must be overcome with the aim to make it into an evaluation and reconstruction framework which helps teachers to consider what is described so as to perceive good practises which may be shared as productive educative encounters. Delving into the main questions brings about the presence of theoretical dilemmas (Porlán y Martín, 1999) and indubitably incites a specific degree of conflict with the teacher’s instructive model itself. This may create the ideal circumstances to expect more prominent hypothetical dangers and a wider opening to different perspectives which will inspire a new teaching method and that should become the plan for another mediation and its consequent application (possibly, the most problematic step).

Currently, the diary has become the foundation of our investigation through the organisation of specific and explicit techniques oriented towards figuring out the workings of a new program within the reality of the classroom, being the source of other research tools as well (interviews, questionnaires, etc.).

Therefore, its objective is not to generalise results, but to influence the practise, trying to solve problems, easing, when concluded, their experience related to the group of teachers with the purpose of establishing guidelines to be followed in their teaching practise when they must face similar difficulties in comparable situations.

Nevertheless, it must be noted that changes are achieved exclusively with the responsibility of teachers to distinguish and innovate their activities in the classroom, as they may create new cycles of socialisation of the information and a more renowned inspiration in order to encourage analysis, reflection, and criticality in socio-educative circles to manage to be agents of change and transformation this way. After all, there is a transformative, imaginative, and non-dormant regenerative intentionality of the social reality which encourages the systematisation of the encounters as a trait of a broader interaction. The changing element is not the systematisation itself, but the individuals whom, in being organised, strengthen their ability to drive change.

#### **IV. Structural elements of the pedagogical diary**

The objective in this stage should be focused on providing general and broad information about what, according to our perspective, happens in the study room, portraying the exercises, the processes, and classifying by different elements, being fundamental mediators between theory and practise. As a result, filling out the diary will identify different characteristics as presented below paraphrasing Porlán y Martín's diary (1999, pp.18-23).

- a) Those concerning the teacher. Types of institutional ways to act most frequent exercises and groupings. Ways of behaving: rules, both punishing and regulating. Different ways of behaving of a more emotional nature.
- b) Those referred to by students. Individual ways of behaving, contribution, and level of cooperation in exercises. Most repeated thoughts and origins. Ways of behaving related to different students and to the teacher.
- c) Those concerning the correspondence of information. Tools which allow to establish meaningful links between theory (the model), the program, and practise. Timeline of the class dynamic. Most repeated processes that happen in the classroom. General occasions related to tasks. Different occasions which are not related and that happen in line with tasks.

In this sense, the pedagogical diary is an innovative tool in the systematisation of the teaching practise. A relevant aspect in order to specify it is its due organisation; that is, being able to identify the importance of each one of the components which will be a key piece in its recording and analysis.

The diary consolidates certain intellectual skills, in systematising the experiences of teachers' work in a reflective way and in communicating them in writing. At the same time, it assists the development of information observation and categorisation, organisation, synthesis, and analysis skills mainly. Likewise, the disposition of an open mind, responsibility, and honesty

which leads to processes of analysis and reflection of the teacher’s skills based on self-criticism. (Simoni y Santillana, 2015, p.178)

The format which is shown below intends to carry out a SOWT analysis which will allow novel teachers precisely to reassess what will be the beginning of an innovative practise. However, teachers with a broader career or a longer-standing experience may use more freely other ways of recording or formats of their choice which enable them to continue their analysis, reflection, and reassessment of their teaching practise through the years

**Table 2.**

*Suggested format to use in the recording of the diaries of the teachers in training.*

<b>TEACHING PRACTISE DIARY</b>	
Purpose of the session:	Core activity:
<b>Internal analysis</b>	
Achievements obtained during the session:	Difficulties faced during the session:
I am best at:	My opportunity areas are:
<b>External analysis</b>	
Support	Dangers:
Results:	Text:

Source: Simoni y Santillana (2015, pp.180-181).

In this outlook which leans towards the teaching intervention and ensuring the transformation and innovation of the own practise, the different activities carried out during the school day are highlighted. According to the course program:

This research tool offers students an extra possibility to reconstruct their own teaching practise and to reflect upon it revolving around aspects such as:

1. The opinions and reactions of children in preschool about activities carried out and their own learning; to determine whether the intervention proposals used sparked their interest in the activities.
2. How is the intervention day perceived? How did they do it? What did they not do or something they should not forget? What is another way to intervene? Or what needs to be modified?
3. Information becomes raw material to retrieve the academic problems inside the classroom. (SEP, 2023b, pp.23-24).

Trying not to lose sight of the aspects that have been quoted before, the following table is shown, evincing the advantages and disadvantages of the use of the practise diary as a systematisation tool.

**Table 3.**

*Tabla de ventajas y desventajas del uso del formato de diario de prácticas.*

<b>Advantages</b>	<b>Disadvantages</b>
Knowing the core aspects of the teaching intervention.	Focusing the record in only one activity for the day.
Identifying the theoretical aspects of each one of the formative fields.	Recording just the information that the part requires.
Considering learning environments.	The time needed to fill out the format must be immediate so as to not forget any detail, which implies stopping the teaching action for a moment for the filling.
Recognising the aspects that need to be reconsidered the next day.	Implication of quite an implement of critical thought for the construction of valid arguments so that it is functional.
Understanding the different contexts where the activities are carried out and their implications.	
Assess the development processes of childhood.	
Focalise opportunity areas towards assisting in future classroom interventions	

Source: own elaboration.

## **V. The pedagogical diary as an innovative tool in the transformation of the teaching practise: A practical example**

Below, in Table 4 appears a practical example of the recording of the pedagogical diary as an innovative tool in the transformation of the teaching practise.

**Table 4,**

*Table of the pedagogical diary: A practical example.*

<b>PEDAGOGICAL DIARY OF THE TEACHING PRACTISE</b>	
<b>Purpose of the session</b>	<b>Core activity</b>
Promoting the development of early writing skills and the identification of their name, thus encouraging children's autonomy and self-esteem.	Using flashcards with the students' names written on them and playing games in which the children must find their name among the flashcards and put it in its place or point at their name when they are called.
<b>Internal analysis</b>	
Achievements obtained during the session:	Difficulties faced during the session:
<u>Development of action and concentration skills:</u> The children showed greater attention and concentration when looking for and recognising their names among the flashcards, which indicates a positive development in these fundamental skills for learning.	<u>Distractions:</u> Some children were easily distracted during the game, which made their active participation difficult.  <u>Individual difficulties:</u> Some children had trouble identifying or remembering their name, which required more time and individual support.
<u>Promoting autonomy:</u> Allowing the children to find and place their names by themselves, I encouraged their	<u>Time management:</u> The game took more time than expected, which affected the rest of the activities planned for the session.

<p>independence and self-confidence, which contributes to their emotional and social development.</p> <p><u>Identification of the writing of their names:</u> Many children showed progress in the visual identification of their written names, which is fundamental for the development of reading and writing skills.</p> <p><u>Strengthening of personal identity:</u> While relating their names to their own identity, children feel more confident and connected with their own selves, which favours their positive self-conception.</p> <p><u>Teacher:</u> Concerning my intervention, I identified more clarity in the purpose while organising the planning and in the moment of executing it.</p>	<p><u>Materials:</u> In some cases, the materials used weren't the most adequate, which made the children's participation difficult.</p>
<p>I am best at:</p> <p><u>Adaptability:</u> I have the ability to adjust my teaching to fit the individual needs of each child, looking for different approaches and strategies to ensure that they can all learn and participate in an effective way.</p> <p><u>Empathy:</u> I understand my students' feelings and perspectives, which allows me to establish positive, trusting relations, which are fundamental for their learning and development.</p> <p><u>Organisation:</u> I am very organised in the planning and execution of my classes, making sure to cover the educative objectives I am efficient and effective way.</p>	<p><b>My weaknesses are:</b></p> <p><u>Time management:</u> Sometimes it is difficult for me to stay within the time limits established for each activity, which could affect the development of other activities planned for the session.</p> <p><u>Stress management:</u> Under high levels of pressure, it is sometimes difficult for me to stay calm and make effective decisions, which could affect my work and the quality of my teaching.</p> <p><u>Continuous evaluation:</u> Although I am committed to the evaluation of my students' progress, it is sometimes challenging to keep constant and detailed track of their individual development.</p>
<p><b>External analysis</b></p>	
<p>Support:</p> <p><u>Head teacher:</u> Having the guidance and support of an experienced teacher in the field of preschool education has been invaluable. Her orientation and feedback have been key for my professional development.</p> <p><u>Educative resources:</u> Having access to a variety of educative resources, such</p>	<p>Dangers:</p> <p>If I do not keep up with the latest pedagogical tendencies and practises in preschool education, I could fall behind in my professional development and in providing quality teaching for my students.</p> <p>If I do not manage my stress and workload properly, I could experience fatigue and difficulties to keep my motivation and the quality of my teaching.</p>

<p>as books, didactic materials, and technology has enriched my classes and made my students' learning easier.</p>	
<p>Results:</p>	<p>Text:</p>
<p><u>Active participation:</u> The children participated with enthusiasm in the game, showing interest and commitment to the activity.</p> <p><u>Development of skills:</u> There was visible progress in the children's ability to identify and remember their names, as well as an improvement in their concentration and attention skills.</p> <p>Self-confidence: While finding and placing their names by themselves, the children showed greater confidence in their skills, which contributed to promoting their self-esteem and autonomy.</p>	<p>I carried out a session that was focused on the identification and writing of the children's names with the purpose of promoting their early writing skills as well as personal identification. The activity focused on a game of name identification in which the children looked for and situated their names in a designated place.</p> <p>Significant achievements were obtained during the session. A notable development in the children's attention and concentration skills was observed, as well as an encouragement of autonomy and self-confidence as they were allowed to find and place their names by themselves. Additionally, progress was made in the identification of the writing of their names, which is key for their academic and emotional development. The activity contributed to the strengthening of the children's personal identity too, as they related their names with their own selves and their individuality.</p> <p>However, they faced some difficulties during the session as well. Some children appeared distracted during the game, which made their active participation difficult. Moreover, there were cases in which some children had difficulties identifying and remembering their names, which required more time and individual support. Time management was another challenge, as the game took longer than expected, affecting the development of other activities planned for the session. Additionally, in some cases the materials used were not the most adequate, which made the children's participation difficult.</p> <p>As a teacher in preschool education training, having the guidance and support of a head teacher has been invaluable. Regarding my weaknesses as a teacher in training, I admit that I can improve in time and stress management, continuous evaluation of my students' progress, technological innovation in teaching, and effective communication of expectations and objectives.</p>

Source: own elaboration.

## VI. Conclusions

This chapter has tackled the importance of the pedagogical diary as an innovative tool in the systematisation and transformation of the teaching practise, considering the fact that currently in Mexico, initial teacher training keeps being done mainly in public Normal Schools. The historical moment that the students of the Bachelor's Degree of Early Childhood Education are living and the responsibility that their current participation entails in redefining their role as teachers, together with the responsibility, take on importance, as they and their learning process are the fundamental piece of the social transformation that is intended to be achieved and they are the ones who truly have a significant impact on the learning processes of children.

To this end, what is most important in this process of redefinition of the practice was the analysis and reflection of the discoveries found from the suggested methodology of the systematisation process contemplated and the suggested format of the pedagogical diary.

Therefore, the pedagogical diary must be understood as an extraordinary tool for the systematisation of successful practices or blunders in the classroom, with the purpose of having a baggage of experiences which act as a contribution to the improvement of the teaching practice itself. It is worth noting that, in order to record observations, notes were taken during the practical work, but they are later reviewed or actions and feelings which were not written down but were experienced at the moment are later analysed thoroughly. All of these recording fragments are identified based on analysis, understanding, and explanation of our demeanour, enabling the identification of problems that are to be solved, making it possible to recognise both the good and bad choices and turn them into opportunity areas which will start a new, meaningful practice.

It is fascinating to understand that there is a contrast between the educative systems and learning and teaching strategies. In this chapter of educative innovation, a highlight was placed on the learning methodologies in which students are responsible for their own learning process, which implied the systematisation and reflection of their didactic attitude, as well as the evaluation of their own growth experience, for which they carry out improvement activities on the fields that are useful to promote the different teaching activities.

The learning process in the classroom requires detailed organisation in which the recording of the diary must have an expectation and not become merely purposeless activities. On the contrary, it is fundamental to achieve the knowledge and performance in the fulfilment of didactic resources, and the construction of critical thinking with the purpose of reassessing strategies and activities from a humanist perspective for the development of socio-emotional skills in early childhood.

It is fundamental to highlight the pedagogical diary itself as an innovative tool which allowed the classrooms to reassess the ways of teaching from within, giving the students a leading role in an active learning where the suggested structure of the diary makes it easy to systematise thoughts, acts, and feelings which will be able to be contrasted with the expectative and the reality through filling out the SOWT, always striving to enrich their experiences in the next teaching intervention.

In this sense, it is highly valuable to showcase the composition of the pedagogical diary for the academical reflection of behavioural patterns and later plan from the design of didactic pedagogical sequences with a critical focus on the texts created under compositional guidelines.

The diary becomes a teaching mark of the educative scenario in which we are moving and allows us to discover those components that are given a more notable value. Specifically, a practice diary highlights deep perspectives which are generally intricately linked to knowledge acquired during initial training, as they are usually not divergent from hypothetical information, biasing the teacher in training's work perspective. Therefore, it is important to give a try to analysis teaching and the reflection of needs in the different knowledge and competence fields throughout the teacher's training.

Finally, a highlight is placed on the advantages and disadvantages of the use of the suggested format. Starting with the advantages, which deal with the following topics: knowing the core aspects of the teaching intervention, identifying theoretical models about formative fields, creating learning environments, relating them to the different contexts in which they are valued and attend the development processes of childhood, focalising and tending to the needs in future teaching interventions. Taking into account the fact that the record includes valid arguments, possible disadvantages that can be observed are: recording only the information that the part requires, the time needed to fill out the format must be immediate in order not to forget any detail, which implies having to stop the teaching action for a moment for the filling and the implementation of critical thinking for the constructing of valid arguments for it to be functional as shown in the aforementioned practical example.

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## Chapter 9. The impact of role-playing in speaking skills of English as a Foreign Language

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### I. Introduction

The 21st century demands that scholars focus on the development of English proficiency (Boukersoul & Sadoune, 2024) because much of the academic information is available in this language, from basic instructions for using a cellphone to research project results. In this context, proficiency in oral communication in English as a Foreign Language (EFL) offers numerous opportunities, such as interacting with native speakers and others who use English as a lingua franca in various international settings (Mendes De Oliveira, 2024). Additionally, speaking English facilitates access to a wide range of international careers, training courses, and scholarships. Furthermore, fluency in English provides job opportunities, including remote work, which helps to reduce linguistic and cultural barriers. Importantly, learning EFL also enhances cognitive skills like memory, multitasking, and problem-solving. Klimova and Pikhart (2023) noted that engaging additional senses through digital language instruction can benefit cognitive development.

On the other hand, communicating research findings remains a significant challenge for many people (Purwanto et al., 2023). Proficiency in spoken English has been a major issue globally, particularly in non-native English-speaking countries (Zhai & Wibowo, 2023). Acquiring a target language can be highly challenging for students at various educational levels (primary school, high school, university) and even in open courses at language institutes.

Given these challenges, this project aims to analyze the impact of role-playing techniques on the development of speaking skills in EFL through a systematic review of academic literature. The study examines how researchers have addressed the lack of speaking proficiency in EFL and how role-playing techniques have been used to improve these skills.

According to the bibliometric analysis by Kongsanekham and Chano (2024), research on role-playing in teaching and learning has produced 800 documents over the past six years, with a decrease in publications on “statistical significance” The highest number of articles, 169, was recorded in 2022, followed by an increase in 2023, though it later declined. This indicates that role-playing techniques have been widely studied and remain a significant issue in English language communication development.

Despite the extensive research on EFL verbal communication, there is a lack of exhaustive systematic reviews synthesizing the evidence on the effectiveness of role-playing in Latin American and Ecuadorian contexts. While some theses offer this information, it was not possible to cite this data for the current academic paper.

**Relevance for colleagues:** Understanding the causes of poor oral interaction among students and the strategies used worldwide to address this issue will provide educators and curriculum designers with current, innovative information to improve their teaching performance. This will promote more effective communication and educational practices, focusing on student motivation, interest, and curiosity in using the target language.

Additionally, this review will offer valuable information for researchers to start new studies in their own contexts, updating teaching methodologies and advanced approaches to enhance learners' oral skills. It will also open new avenues for future research, suggesting innovative research lines.

**Socio-economic impact:** The educational community can save on resources and materials, such as handouts, platform usage, and internet bills, by applying innovative strategies. This will also foster students' autonomous learning.

This project will update existing knowledge about teaching strategies for developing students' oral communication in EFL through an exhaustive, systematic review of the literature. It will synthesize available evidence on the effectiveness of role-playing techniques and identify areas needing further research. This includes identifying gaps where more intervention is required and suggesting new ideas for study. Additionally, the review may propose original theoretical models or refine existing ones in the field.

The scope of this review is limited to studies conducted in Asian, African, and Indian contexts due to the limited availability of evidence from Latin American and Ecuadorian settings. The interventions, outcomes, and methodologies reported in these regions will be analyzed to provide a comprehensive view of the subject. There is an urgent need to integrate available data to guide future investigations.

The present systematic review project addresses the following question: How does the role-playing technique influence the development of speaking skills in EFL?

**General objective:** This project aims to analyze the impact of the role-playing technique on improving EFL speaking skills through a systematic review of the academic literature.

**Specific objectives:**

- Identify the theoretical and conceptual foundations of the research variables: role-playing techniques and speaking skills in EFL.
- Apply bibliographic methods to gather data from relevant sources to facilitate systematization, characterization, and evaluation.
- Discuss current theories and approaches related to the study results, providing thoughtful interpretation and critical reflection, and highlighting the impact of role-playing on oral communication in EFL.

Future research lines should include integrating role-playing with technology, varying role-play procedures according to cultural backgrounds, and exploring role-playing's impact on developing socio-emotional skills.

## **II. Literature Review**

The current project is highly significant for investigating the effectiveness of role-playing in enhancing speaking skills among EFL learners. The researcher has observed and documented the challenges students face at various educational levels during oral interactions in everyday classes. The review of academic literature reveals that many institutions have successfully addressed these challenges through the application of role-playing techniques.

For instance, Sayow and Marsevani (2024) concluded that “Role Play Strategy is an effective teaching approach for promoting scholars’ interest, attitude, and effort in practicing their English-speaking skills” (p. 8) in a high school setting. Similarly, a study conducted in a university context showed that role-playing techniques effectively enhance students’ oral communication skills and build their confidence in the classroom (Yudiati & Annisa, 2024). In primary schools, role-playing has been shown to support autonomous learning through dimensions such as situated learning, interactive communication, cooperative learning, and evaluative discussion, focusing on student participation, reflection, and communication in the target language (Li et al., 2024).

Sari and Hamzah (2023) used a quasi-experimental design to assess the impact of role-playing on oral communication skills in EFL. Their results indicated significant improvements from pre-test to post-test, concluding that learners increased their language proficiency and became more active communicators. This study revealed enhancements in linguistic accuracy, cultural understanding, and confidence in real-life communicative situations.

From another perspective, the challenges of oral communication in English as a Foreign Language have been widely studied in countries where English is not the native language. Jamshidnejad (2020) highlighted numerous global challenges related to speaking skills in EFL contexts, illustrating the complex and multidimensional nature of verbal interaction issues. Husamaddin (2024) found that achieving proficiency in oral communication is particularly difficult in contexts where students have limited opportunities to engage in the target language. In Ecuador, this issue has persisted across different educational levels. Ortega-Auquilla and Minchala-Buri (2019) reported low levels of English communication among learners, noting that teaching methods were not aligned with the English curriculum. Molina, Alarcón, and Mourad (2024) provided empirical evidence that low English proficiency remains a challenge in Ecuador. Their study, which applied both quantitative and qualitative methods, confirmed that the CLIL strategy effectively contributes to developing verbal EFL communication among university students. This evidence underscores the need for continued study and intervention to address the limitations in oral communication in EFL.

Based on these findings, the current study aims to explore how role-playing techniques influence the progress of speaking in EFL. This investigation seeks to address the struggles faced by EFL learners not only in specific contexts but globally. The goal is to provide valuable information and evidence for educators worldwide, enabling them to apply a technique that

has been tested, validated, and evaluated in various contexts, leading to positive outcomes in oral communication.

### **III. Materials and Methodology**

In this section, the methodology applied to carry out the project is described. Inclusion and exclusion criteria, search strategies and tools used, databases, and selection and evaluation factors from the reviewed literature are also explained.

The present study considered the variables as follows: the role-playing technique as the independent variable and speaking skills in EFL as the dependent variable. The role-playing technique, as a classroom activity, involves acting out roles like actors in a simulated environment where language is associated with the behaviors, emotions, and attitudes of various activities performed by students (Zhu, 2024). Speaking skills in EFL are defined as the ability to interact verbally in English, including the accurate use of grammar and vocabulary, as well as the ability to convey meaning clearly, fluently, and appropriately in various social contexts. According to Robert and Meenakshi (2022), oral skills encompass the rehearsal of language elements such as vocabulary and grammar, the advancement of fluency, and collaborative capabilities.

A qualitative method was applied in this study, as its goal is to understand phenomena that cannot be quantified. This approach is based on the principles of naturalism, interpretation, and the humanities (Alele & Malau-Aduli, 2023). To achieve the planned objectives, a systematic review methodology was used. According to Pierce (2024), this involves summarizing research findings that have been systematically searched, critically reviewed, compiled using clear methods, and published on a specific topic. The review followed these steps: searching and selecting academic papers, assessing the quality of the selected studies, extracting data, and analyzing the collected information. Out of 50 papers reviewed, 21 were selected based on their valuable contributions to the analysis of the variables in this study.

### **IV. Materials and Data Sources**

The materials and sources used were: Different databases such as : Google scholar, Springer, Elsevier, and Scopus to locate relevant studies on the use of role-Playing technique in teaching EFL speaking skills. Additionally, articles and Publications were searched to mention academic papers, scholarly journal articles.

In addition, systematic review guidelines and manuals: PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines were followed to ensure a demanding methodology. Beyond that, inclusion and exclusion criteria were determined for studies published in the last 5 years in the English language where the role-playing technic was studied to progress speaking EFL. Likewise, the studies of different levels were included, for example the ones done at the primary school, high school, university, and open courses.

In the other hand, exclusion criteria were selected: The papers that were more than 5 years ago, the ones which were in Spanish language, opinion articles, and studies that do not provide empirical data on the improvement of oral skills.

Subsequently, for the systematic search to get the studies keywords were applied: “role-play verbal communication EFL”, “speaking skills EFL”, “English as a Foreign Language”, “teaching, and learning methods”. Afterwards, as search strategies different Boolean operators to combine terms and maximize recovery of relevant studies were employed to be more specific in the procedure of searching the information. For the validity of methodology, sample size, clarity of results, and relevance of the study to the objectives of the review were done. To synthesis the date a standardized form was designed to collect relevant information for each study in a form of array; including title, authors, year of publication, place; diagnostic, pedagogical strategies, Effectiveness of role-playing, students’ perception, and conclusions (Table 1). Correspondingly, a thematic analysis was used to identify patterns and recurrent topics in the selected studies. Similarly, bibliographic management software was employed; to mention, Zotero software to organize and manage bibliographic references, and citation.

## V. Findings

The findings of this systematic review bring a wide-ranging overview of the impact of role-playing technique on the advance of speaking skills in English as a foreign language. Through the analysis of numerous studies, various key issues emerged, pointing out both the benefits and challenges related to role-play. The findings were organized in the following main areas: detected weaknesses, methodological strategies employed, learners’ perception, and conclusions. Each of these categories was discussed in detail, supporting the data collected from the literature reviewed. This section focuses on the contribution of role-playing techniques to the development of verbal interaction proficiency in EFL learners.

**Table 1.**

*Focused bibliographic review document that systematizes the different perspectives of authors, significant contributions and methodology used to address research related to this study.*

Title, author, year, and place	Diagnostic	Pedagogical strategies:	Effectiveness of role-playing:	Students Perception	Conclusions
<b>Effectiveness of Role-Playing Methods in Developing EFL Freshmen’s English-Speaking. Uyen 2024 Vietnam UNIVERSITY:</b>	Have some problems stemming from the uneven quality of English input, and some students are still timid, not actively participating in learning	Building a positive learning environment Use English in real-life situations managers, teachers, students, and the social community	Significant difference in speaking performance between the two groups. effective catalyst to help bond group members together	Most students think that the role-playing method creates many communication situations for students.	Role-playing methods is an appropriate and effective method to train communication skills for EFL students
<b>Role-Playing to Improve Speaking Ability Among Students Yudiati Rini Annisa Anni 2024 Indonesia University</b>	Not able to communicate orally. reluctant speakers Limited opportunities to speak	The researcher implemented 7 major steps in the procedure for the role play activities.	I Cycle successful 60% II Cycle significant improvement. 15 students felt happy when role-playing	felt more enthusiastic to use English orally if role-playing technique was implemented.	Most of them gave positive response of role-playing technique in speaking class
<b>The Effect of Role-Playing Techniques on</b>	The fear of making errors and a lack of	Researchers gave the experimental	Students’ speaking score is improving.	students build their confidence	role-play significantly affects

<p><b>the Speaking Skills of Students at University</b> Idham Shebli Subramaniam Ilangko Khan Alla Mugair Sarab</p>	<p>motivation are just a few reasons for students' difficulty in speaking.</p>	<p>group a pre-test, a treatment session, and a post-test. Nine weeks of treatment were required.</p>	<p>role-playing benefits students by opportunity to struggle with speaking</p>	<p>and inventiveness by motivating them to participate in speaking activities.</p>	<p>students' speaking skills. These findings have positive implications</p>
<p><b>The Effect of Show and Tell, Role-Play and Storytelling on Speaking Skills: Meta-analysis</b> Oktaviani Enma et al. United Kingdom 2024 University</p>	<p>Lack of confidence in the English language, caused by poor habits, not familiar with pronunciation, grammar, vocabulary, fluency, and comprehension L1 interfere to L2</p>	<p>storytelling allowed student to improve speaking better than role-play and show and tell and .</p>	<p>Teachers and students use all three of these methods to help them develop social skills, express ideas and emotions, and become more active and creative</p>	<p>It was inferred that students were motivated and happy to learn English and speak about their real-life situations.</p>	<p>meta-analysis provides evidence supporting the effectiveness of the Show-and-Tell, Role-Play, and Story-Telling methods in teaching English speaking skills.</p>
<p><b>The Effectiveness of a Role-Play Activity in Practicing EFL Learner's Communicative Skills</b> Zhu Nenghui 2024 China University</p>	<p>Lack of students' communicative skills and acquisition of language knowledge in certain contexts,  Teachers need to adopt interesting methods and activities</p>	<p>The cultivation of speaking skills revolves around four dimensions: Language, emotional, environment and culture dimension. SS output understanding of textbook knowledge</p>	<p>Language ability, cultivate cultural awareness, improve thinking quality and learning ability</p>	<p>Through roleplaying, learners <b>can be induced into the set situation</b>. Role-playing, learners' understanding <b>and knowledge of vocabulary usage</b></p>	<p>Reference and ideas for learners' development of communicative skills with role-play. Both fluency and accuracy are important in oral communication activities.</p>
<p><b>The Effectiveness of Task Based Instructions to Improve Speaking Skill of EFL Students Through Role-Plays.</b> Abdurasulova Maftuna Uzbekistan 2023 University</p>	<p>Native languages cause them difficulties using the foreign language. Lack practice the L2 in daily conversation. SS too shy and afraid to conversation</p>	<p>1. SS were guided in topic, G/V 2. SS prepared for the role play, not given any language expressions and G/V 3. pupils did the role play without any preparation.</p>	<p>Reveal that the students improve their speaking skills significantly.  The students learned to speak even without beforehand preparation.</p>	<p>SS seemed much confident to play different roles and topics in stages 2 and 3. Speak without beforehand preparation.</p>	<p>Students can develop their public speaking skills, can erase their fear of speaking as well as they can develop their confidence at speaking.</p>
<p><b>Undergraduate Students' Perception on The Use of Role-Play in Speaking Class</b> Anggrarin Natalia Trianasari Indah Indonesia 2022 University</p>	<p>Speaking difficult to be mastered by the learners. SS feel afraid and shy to practice speaking English in front of the class and watched by a classmate.</p>	<p>Questionnaire Then the script was given and SS (pairs, groups) perform the role play. SS practice the dialogue. SS present the dialogue.</p>	<p>SS' perception of the use of role-play and their self-concept gained a high score. It is suitable and effective. Helps to communicate.</p>	<p>Role-play as effective technique in learning to speak. Helped to develop their speaking taking roles.</p>	<p>Speaking activities with role play to be conducted more frequently and cover more meaningful and contextual topics for the students. play as the activity.</p>

<p><b>Exploring the development of oral skills and social competences through role-plays English language subject in higher education</b> Lirola María Martínez 2024</p>	<p>There is not enough participation in English in university English classes mainly due to the high number of students enrolled</p>	<p>A cooperative methodology Competences, cooperative learning, Active methodologies Social competence</p>	<p>SS acquire social competences, increase their interaction and improve their speaking skills by their participation in role- plays. Become more aware of social situations.</p>	<p>Students have a positive opinion, be clearly aware of technique, contributed development of social competences teaching and learning process</p>	<p>Role-play is a teaching and learning strategy that supports the EFL acquisition process. Students have a positive opinion of role-play, involves critical thinking:</p>
<p><b>The Effect of Role Play Technique Toward Students' Speaking Ability in Implementation of Kurikulum Khairita Martiya Saputra Riyadi Irinta Melit Indonesian</b> 2023 University</p>	<p>Many students lack vocabulary SS repeat the same word. Find Pronunciation difficult to pronounce Insecurity in their performance. SS not interested to study English</p>	<p>Getting to know each other by creating groups and working together. Situations closely to real life. Fantasy or imagination social skills</p>	<p>Positive and significant influence between role play techniques. Experimental group evidence progress</p>	<p>Role play techniques can increase speaking students and give positive effect in teaching speaking. solution to make students more relaxed</p>	<p>Role play gives positive effect for student's speaking ability Positive and significant influence between role play techniques on speaking skills.</p>
<p><b>Effects of Using Role-Play on Iranian Female EFL High School Students' Speaking Performance, Anxiety and Motivation</b> Nouri Zarfsaz 2024 Iran</p>	<p>Since Iran is considered as an EFL context, oral skills are not really emphasized and improved in public educational system.</p>	<p>Students first practice to speak, then master speaking component English classes were held two sessions a week 100 minutes.</p>	<p>Role-plays has a significant effect on female EFL school learners' speaking performance, however, not anxiety and motivation.</p>	<p>Promotes Iranian EFL learners' speaking in the explicit or conventional method</p>	<p>Role-playing is a useful method for teaching speaking English. Effective, and controlled, and enjoyable approach for teachers and students. Increases variety.</p>
<p><b>Enhancing Students' Speaking Ability at SMK Jaguars Through the Application of Role Play Technique</b> Lestari et al. Indonesia 2024 Primary</p>	<p>Limited speaking opportunities, lack of student motivation, monotonous teaching methods crowded class environment and noisy school atmosphere</p>	<p>Assigned roles, real-world scenarios, practice, diverse roles in authentic situations. platform for expression p. Furthermore, vocabulary, dictionaries</p>	<p>Improvement in students' speaking abilities mean score for the pre-test was 67.21, which increased to 72.21 in post-test I 78.52 in post-test II.</p>	<p>Engagement conversations, participation during discussions, performance in front of their peers, pronunciation, fluency, and heightened self-assurance expression.</p>	<p>significant improvement in speaking ability, progressing, viable alternative strategy for educators in the domain of speaking instruction</p>

<p><b>Improving high school students' speaking skill through role play strategy: A classroom action research</b>  <b>Sayow Eiren Marsevani, Maya</b>  <b>2024</b>  <b>Indonesia</b></p>	<p>Low in speaking skill. Identified performance deficiencies                  Challenges in expressing their thoughts, Pauses during speech, and insufficient proficiency in vocabulary and grammar usage.</p>	<p>Groups have choices on topics. Discuss the storyline. Present the story. Listening to the pronunciation of words, repeat and imitate, memorize the scenario.</p>	<p>Significant improvement in scores demonstrating the effectiveness of the Role Play in enhancing their speaking abilities.</p>	<p>students' increase interest, attitude, and effort in practicing their English-speaking skills. Overcome challenges Expressing themselves fluently and mastering.</p>	<p>Effective approach for promoting students' speaking skills. Teachers should use creative and modified teaching materials to improve students' curiosity.</p>
<p><b>The Effectiveness of Role Play in Improving Speaking Skill of EFL Students</b>  <b>Dwiyanti A. Lolita Y.</b>  <b>2023</b>  <b>Indonesia</b>  <b>High School</b></p>	<p>Have no practiced SS need variety of communicate situations, band specific instruction Traditional classrooms, No express feelings, thoughts, messages.</p>	<p>Card utilized with a library scenario and activities for asking and helping, instructions for conversation assess their speaking ability.</p>	<p>7.64 Experimental group. students who are taught using Role play techniques receive higher scores than those who are not.</p>	<p>Students can express their feeling become more motivated, creative, develop their social skill, and can explore the feeling of the role that already played by them.</p>	<p>Improve student learning outcomes, be an alternative for teachers. Has the greatest impact on students' ability to communicate.</p>
<p><b>The Impact of Role Play on Enhancing Learners' Interaction in Speaking</b>  <b>Lahbib Khalid Farhane Hamza</b>  <b>Morocco</b>  <b>2023</b>  <b>High school</b></p>	<p>Speaking is not good, no opportunities for rehearsal, lack fluency in speech, not well exposed to authentic English, constant motivation was crucial</p>	<p>Pre-teach vocabulary Ss watch the video Ts models the role play, SS perform the role play practice the dialogue at home, next class present class.</p>	<p>Role-plays have a positive effect on students' speaking skills, there is a significant difference in the mean score between groups (Ex /Cn)</p>	<p>Results could be attributed to the fact that some students were motivated to students in the experimental group did a great job rehearsing</p>	<p>There were several advantages of implementing role play in teaching students speaking skills. Tends to help them speak in real life situations</p>
<p><b>Using Role Play to Motivate High-School Students in EFL Speaking Classes</b>  <b>Doan Nguyen</b>  <b>Vietnam</b>  <b>2024</b></p>	<p>Textbook rigorously destroy and ruin the activeness, enthusiasm, and interest of those clever students towards the English subject.</p>	<p>Interpersonal skills training includes four parts: introduction, instruction, run session, and debriefing. There are various other steps</p>	<p>Productively EFL-speaking classes, engagement in language production. SS show interest and motivation in. Always ready to perform right away. Challenge was adequate.</p>	<p>Improved public speaking skill. Second, security towards crowd, learn to decide quickly what to say, which improves fluency</p>	<p>Role play in the EFL classroom has increased students' motivation, participation, and enthusiasm in speaking the target language</p>

Note: This table summarize the data found from the researchers reviewed.

## VI. Results Analysis

This section is considered the most relevant of the present project because it combines data obtained from previous investigations with the study itself. It outlines findings from the literature review and explores significant patterns, trends, and relationships. Through this process, the authors aim to recognize the current state of role-playing technique integration and identify opportunities to optimize its impact on teaching and learning EFL.

According to Uyen (2024), the application of the role-playing technique at the university level is a suitable and effective tool for advancing communication skills in EFL students. This technique is well known for its efficiency in helping bond group members together, thus facilitating cooperative learning.

Another study revealed that pre-test and post-test assessments applied to experimental and control groups showed that the role-playing method had a substantial effect on the speaking performance of female students in EFL schools. However, both groups did not show positive results in terms of anxiety and motivation levels (Nouri & Zarfsaz, 2024). Consequently, educators need to be resourceful in using this technique to enhance learners' self-esteem and develop cognitive and emotional skills.

According to Widiarti and Astuti (2023), creating realistic scenarios can have a fundamental impact on students' oral skills, increase their confidence, and elicit a variety of responses from students. Teachers of EFL should consider the use of role-playing in communication classes, considering the factors that influence learners' communication skills.

Another important point mentioned by Utami (2023) is that the effectiveness of the role-playing technique is influenced by factors such as scaffolding and various strategies employed by the educator. When students encounter difficulties with tasks, it is essential for teachers to guide them step by step to make the tasks achievable.

Additionally, data show that using role play to improve English speaking skills has other benefits. Lirola (2024) notes that learners exposed to this technique can develop their social skills, acquire social competencies, increase their level of interaction, and become more aware of social situations.

Similarly, other research highlights that learners who use role-play in their classrooms not only improve their oral communication skills but also enhance their autonomous learning strategies. Li et al., (2024) emphasize that their program encourages autonomous learning through exposure to oral communication and incorporates work-based learning principles to improve learners' English language skills and promote self-directed learning. In this context, role-playing creates a supportive environment where students can explore independently and develop their English-speaking skills.

Regarding the boundaries of role-playing, the findings showed that this technique offers the advantage of creating a comfortable and engaging learning environment. Negara (2021) affirmed that pupils' oral communication improves with role-playing, leading to increased self-confidence, cooperative skills among students, and a more enjoyable learning atmosphere.

Previous studies demonstrate that the role-playing technique is highly effective in overcoming difficulties in speaking skills across various contexts. It exposes students to real-life situations, enhances autonomous learning skills, provides a comfortable learning environment, and incorporates scaffolding activities. However, findings indicate that this technique has not significantly reduced anxiety levels. Therefore, further interventions focusing on emotional intelligence are necessary to improve students' cognitive and emotional development.

## VII. Discussion

The proficiency in the English language revolves around the development of four macro-skills: two receptive (listening and reading) and two productive (speaking and writing) (Diez & Diez, 2024). In relation to oral communication in EFL, several relevant aspects influence the success of oral interaction: underdeveloped oral skills, pedagogical strategies, the effectiveness of the role-playing technique, and EFL learners' perceptions and experiences.

In various contexts where English is taught as a foreign language, numerous complications have been identified. Uyen (2024) demonstrated the positive impact of role-play on learners' verbal performance in a Vietnamese context. However, initial challenges included unequal access to English learning and lack of confidence in performance. This evidence is like that found by Yudiati and Annisa (2024), who noted that learners were reluctant speakers due to negative prior experiences and limited exposure to English dialogue. Oktaviani et al., (2024) also reported L1 interference in L2 acquisition. Additionally, Lirola (2024) found limited student participation due to large class sizes. Despite these issues, the role-play strategy, focused on creating a positive learning environment, was perceived as very useful by students, who felt motivated and benefited from numerous communicative opportunities. Therefore, educators should tailor activities to address these weaknesses by setting appropriate time limits, adjusting difficulty levels, and providing essential feedback.

The methodology applied in English language learning is crucial for transferring oral communication skills from the classroom to real-world situations. Abdurasulova (2023) demonstrated this by using a three-cycle methodology where students gradually developed their oral skills. In the first cycle, students received both the topic and script; in the second, only the topic; and in the third, were required to perform without preparation. Khairita et al., (2023) found that cooperative role-play, involving various characters and imaginative scenarios, was highly effective. Similarly, Lestari et al., (2024) used platforms and dictionaries to support vocabulary acquisition, enhancing performance and preparation. In all these studies, learners overcame fear, increased confidence, and showed significant progress. Educators should plan classes using the role-playing technique and explore different strategies to create an environment conducive to meaningful and free interaction.

The effectiveness of role-playing revealed several key features. Idham et al., (2022) found substantial progress in oral skills among the experimental group compared to those taught using the grammar-translation method. Sayow and Marsevani (2024) reported that role-playing is an effective approach for enhancing students' speaking skills. Dwiyantri and Lolita (2023) and Lahbib and Farhane (2023) both affirmed the significant impact of role-play on learners' communication abilities. Doan (2024) discovered that role-play increases student engagement in language production. These studies suggest that role-playing is a valuable

strategy for EFL classrooms, offering extensive exposure to real-life scenarios and promoting cultural awareness.

Student perceptions of the role-playing technique also highlight its impact on oral interaction. Anggrarini and Trianasari (2022) noted that learners appreciated the opportunity to engage in various roles and contextual topics. Zhu (2024) found that role-play enhances vocabulary and cultural awareness through structured experiences. Alzubi et al., (2024) confirmed that students viewed role-play as an effective tool for promoting cooperative work, suggesting differentiated instruction and increased involvement. Idham et al., (2022) reported that role-play builds self-confidence and creativity by motivating student participation in oral communication. Thus, role-playing offers ample opportunities for engagement in the EFL learning process, with careful planning of activities based on students' needs and interests being a sensible approach.

## **VIII. Conclusions**

The objective of this systematic review was to analyze the impact of role-playing on the development of oral skills in the context of English as a Foreign Language (EFL). The review identified various pedagogical strategies used, evaluated their effectiveness, and explored EFL learners' insights.

The findings reveal that the role-playing technique contributes to diverse pedagogical strategies for acquiring speaking skills in EFL learners. These strategies include cycle methodology, authentic language experiences, interactive activities involving fantasy and imagination, access to platforms, vocabulary and expression enhancement, and role-playing different characters. Additionally, the review highlights the effectiveness of role-playing in improving EFL learners' verbal communication proficiency, as evidenced by increased motivation, enthusiasm, fluency, accuracy, and confidence in oral interaction.

EFL learners perceive role-playing as a valuable tool for developing oral English skills, noting its practicality, flexibility, and motivational benefits. They also report significant progress, effective engagement in language production, coverage of meaningful and contextual topics, and improvements in vocabulary and cultural awareness. Despite these advantages, the review identifies certain limitations and challenges associated with role-playing in the EFL speaking learning process, such as the lack of impact on reducing anxiety, issues with content authenticity, and potential disruptions.

In conclusion, while role-playing offers promising prospects for enhancing verbal skills in EFL contexts, it is crucial for educators to critically assess its pedagogical application, considering both its benefits and limitations. Future research should continue to explore innovative approaches for successfully integrating this technique into EFL speaking training, addressing the evolving needs and preferences of learners, particularly in developing emotional intelligence and adapting to the digital age.

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## Chapter 10. Educating from the family on *Personal Self-Care* for violence prevention in educational institutions

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### I. Introduction

This article focuses on analyzing the perceptions of students at the “Enrique C. Rébsamen” Veracruz Normal School regarding violence prevention, with a particular emphasis on the family context and its influence on self-care. Violence prevention has emerged as a critical priority both nationally and internationally, especially in educational settings where conflicts and problems have become increasingly frequent. The primary objective of this research is to enrich the academic debate on optimizing strategies for addressing and preventing violence within the family environment and fostering students' self-care education. This is essential for strengthening self-esteem and promoting healthy relationships within the educational community of the Veracruz Normal School, thereby advancing educational inclusion and a culture of peace.

In this context, this study gains notable importance due to the need to address school violence—a pervasive social phenomenon in numerous educational institutions that often does not receive adequate attention. Beyond its impact on the school environment, violence has serious repercussions on the physical and mental health of those who experience it, underscoring the importance of addressing this issue during the professional training of future educators. The conceptual framework of this text explores the complexity of violence and highlights the need for affirmative measures to prevent and eradicate it in educational settings.

Additionally, the essential role of self-care is analyzed, encompassing elements such as hygiene, nutrition, lifestyle, and the social family environment in creating healthy environments. Legal aspects linked to the right to adequate housing are also addressed, recognizing that violence often originates in the home. This emphasizes the need to approach this problem comprehensively, considering both social and individual factors.

The World Health Organization (WHO, 2009) defines self-care as follows: “Self-care is the ability of individuals, families, and communities to promote health, prevent disease, maintain health, and cope with illness and disability with or without the support of a healthcare provider.” In essence, individuals develop the capacity to understand what is healthy for their body and mind.

Various theories and authors are cited to help understand the complexity of this phenomenon, ranging from structural violence to more subtle forms of symbolic violence. Conducting this research to identify the perceptions of Veracruz Normal School students regarding violence prevention and its impact on self-care is crucial. These situations persist in educational institutions, often unrecognized, creating a social phenomenon that translates into a significant educational issue with profound societal consequences. As Debarbieux (cited in Chapot & Felten, 2020) states, “The mechanisms corresponding to school bullying are forms of violence

known as 'ordinary,' but they must be taken into account" (p. 3) due to their dangerousness. "Ordinary" refers to the constant repetition of a form of violence.

The repetition of "microviolences" entails significant risks and consequences, potentially deteriorating the mental health of those affected, leading to issues ranging from depression to suicide attempts. This phenomenon extends beyond the school environment, becoming a social problem that affects both the physical and psychological health of society. Thus, it is imperative to make this reality visible and reflect on its implications for the health and professional development of teacher trainees who are in the process of becoming future educators.

### **1.1. Some conceptual references on forms and types of violence**

It is important to note that the concept of violence has been extensively studied and cannot be addressed as an abstract or univocal entity. Violence is a complex, heterogeneous, and multidimensional phenomenon that resists encapsulation within a single term. For this reason, some authors (Strenski, 2010; Bedin & Dortier, 2011) prefer to refer to violence in plural terms, "violences," rather than singularly (cited in Giménez Montiel & Jiménez Ornelas, 2017). Within this context, this study discusses the attention, prevention, and eradication of various forms and types of violence observed at the Veracruz Normal School through the implementation of affirmative measures.

The attention to and prevention of violence have become global priorities, particularly in response to the toxic and turbulent environments that impact all social aspects, with a special focus on the school setting. This urgency is reflected both in society at large and at the Veracruz Normal School, where students call for the adoption of specific protocols to address, prevent, and eliminate violence. In this sense, the training of future teachers is framed within a critical intercultural educational approach that promotes the recognition of diversity as a source of enrichment. This approach facilitates intercultural dialogue to achieve equity, equality, and social justice within the Normal School community through education.

### **1.2. The home as a pillar in creating healthy environments**

The home plays a crucial role as the nucleus for creating healthy environments, serving as the space where individuals spend most of their time and where the personalities of future citizens are shaped. This environment is formed through daily interactions with immediate and extended family members, as well as through social networks and relationships, facilitating the exchange of ideas, values, and life plans.

From the perspective of family members and the way they interact, the home is founded on recognizing diversity as a source of richness that fosters interculturality. Legally, the right to adequate housing is enshrined in the Political Constitution of the United Mexican States under Article 7, following an amendment published in the *Diario Oficial de la Federación* on February 7, 1983. This reform establishes the right to housing as a second-generation individual guarantee (D.O.F., 1983).

The *Ley de Vivienda* (Housing Law) provides the legal framework regulating this right in accordance with the constitutional mandate, published in the *Diario Oficial de la Federación* on June 27, 2006. The right to adequate housing ensures that all individuals, regardless of

their economic or sociocultural background, have access to quality housing that is well-located, equipped with basic services, secure, and adheres to ethical standards of quality. However, it is important to note that Mexico faces a 45% housing deficit, with significant disparities in infrastructure, basic services, and equipment access, according to data from INEGI (INEGI, 2020).

Additionally, research has consistently highlighted that violence often originates in the home, where specific dynamics between the involved agents play a critical role. In particular, the relationship between the aggressor and the victim is marked by intimidation. According to Magendzo and other researchers (cited in Varela et al., 2009), the essence of intimidation lies in control and power, with aggressors seeking to dominate others. Aggression thus becomes a strategy for gaining power and controlling resources or benefits. While aggressors may also be victims of violence, their social position often reinforces their aggressive behavior. These aggressions frequently involve observers, “helpers,” and “encouragers” (Farmer et al., 2007).

This article aligns with the perspective of Norwegian sociologist Johan Galtung (2004), cited by Giménez Montiel and Jiménez Ornelas (2017), who argues that any system of social inequality that causes unnecessary suffering or death, along with the symbolic structures that justify it, should be considered violent, even if invisible and lacking direct confrontation. Similarly, authors such as Schinkel (2013), with his theory of *Triadas Violentiae* (private, state, and structural violence), and Žižek (2009) with his “triumvirate” of subjective, symbolic, and systemic violence, adopt comparable positions.

Regarding structural violence, Johan Galtung (2004), a pioneer in peace research, introduced the concept of “structural violence” to describe phenomena where social structures cause injustice, poverty, suffering, and death. Poverty, exclusion, and social inequalities are powerful determinants of violence. He emphasizes that violence itself is one of the primary drivers of further violence, and responding to it with additional violence perpetuates a pernicious cycle known as the spiral of violence. The network of factors explaining the emergence and reproduction of violence is complex, making it challenging to identify its origins and subsequent consequences.

## II. Forms and Types of Violence

For this analysis, the focus is on examining violence as a public health issue, as identified in the *World Health Report* (2003), “Wings for Change,” and documents from Geneva on global violence. Understanding violence as a public health concern is inherently complex due to the abstract and subjective nature of the term. Following Krug, Dahlberg, Mercy, Zwi, and Lozano, as cited by the WHO (2003), violence is defined as:

The intentional use of physical force or power threatened or actual, against oneself, another person, or a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, developmental disruption, or deprivation (p. 3).

According to the *Orden Jurídico del Gobierno de México* (2020), violence can manifest in various contexts, whether in domestic settings or public spaces such as workplaces, schools, streets, or public transportation. UN Women (2022) has raised alarms about the troubling increase in violence, particularly during the COVID-19 lockdown, which led to a 60% rise in domestic violence cases against women in Mexico, according to UN statistics. This surge

highlights the rapid growth of gender-based violence in the country, with two out of three women reporting experiencing some form of violence since the age of 15. This amounts to over 19 million women in Mexico facing inequality, mistreatment, and social injustice.

As mentioned earlier, the disparity between men and women is evident across all sectors. For instance, in the economic sphere, "only 5% of women hold decision-making positions, while the remaining 95% are occupied by men," reflecting extreme inequality in policymaking and public decision-making (Instituto Nacional de las Mujeres, 2007, p. 31). To address this reality, it is essential to break the silence and encourage reporting. Recognizing and differentiating the various types of violence is fundamental, and the following categories are identified:

- **Physical Violence.** Acts or omissions affecting the victim's survival, including the destruction, withholding, or distraction of objects, personal documents, property, or economic resources needed to meet their needs. It also includes damage to shared or personal property.
- **Psychological or Emotional Violence.** Actions or omissions aimed at degrading or controlling a person's actions, beliefs, or decisions through intimidation, manipulation, threats, humiliation, isolation, or any behavior that harms psychological health. This type of violence is prevalent and often normalized in society, requiring recognition and denunciation.
- **Sexual Violence:** Abusive acts of power or intentional omissions to dominate, control, or assault women physically, verbally, psychologically, economically, or sexually, whether inside or outside the family home, by an aggressor with or without a relationship to the victim.
- **Economic Violence.** The use of money to establish harmful power dynamics, including withholding earnings, restricting access to resources, or denying financial independence.
- **Gender-Based Violence.** Acts of violence directed at an individual because of their sex or sexual preference. These acts often target women and may also affect men who deviate from traditional masculine roles, such as those expressing emotions or vulnerability.
- **Vicariate Violence.** The use of children or loved ones to cause emotional harm to the victim.
- **Family Violence.** Non-accidental acts that inflict harm using physical force or objects capable of causing injury.
- **Patrimonial Violence.** Actions or omissions affecting economic survival by limiting access to income or unequal pay.
- **Labor and Educational Violence.** Abuse of power in workplaces or educational settings that harms self-esteem, integrity, and development, including sexual harassment.

- **Community Violence.** Acts that violate women's rights, leading to denigration, discrimination, or exclusion in public spaces.
- **Institutional Violence.** Acts or omissions by public servants that delay or deny women's rights and access to public policies.
- **Femicide Violence.** Extreme forms of gender-based violence against women, often resulting in their death.
- **Digital Violence.** Acts using technology to expose or share intimate content without consent, attacking women's dignity and perpetuating the cycle of violence.

These forms of violence are still under study, and new categories continue to emerge. This classification aligns with those outlined by Fundación Ayuda en Acción (2018).

### 2.1 The cycle or spiral of violence

It is crucial to understand how the cycle of violence develops—a concept introduced by American psychologist Lenore E. Walker (2017) in her work *The Battered Woman*. She described how violence against women, particularly intimate partner violence, increases in a cyclical or upward spiral pattern. Walker identified three phases in this escalating cycle:

1. **Tension Phase.** Characterized by a gradual increase in friction and conflict within the couple. The abusive partner shows hostility, but not explosively. The woman often tries to calm, appease, or avoid upsetting her aggressor to manage the situation.
2. **Aggression Phase.** At this point, aggression becomes fully visible. The woman has tangible evidence to report the abuse and may feel motivated to seek help or end the relationship. However, fear may prevent her from taking action.
3. **Reconciliation or Honeymoon Phase.** The abuser often expresses remorse, apologizes, promises change, and displays exaggerated affection. Following this apparent change, the woman may justify her partner's behavior and stay, dismissing the violent episode. If she has filed a complaint, she may withdraw it and rationalize the events to herself and others.

Walker (2013) noted that repetition of the cycle increases the severity of violence, with reconciliatory moments becoming less frequent and the escalation repeating in an endless spiral. Fear dominates the victim's life. Walker argued, "Abusive relationships rarely benefit from couple's therapy. It is better for these relationships to end, as the cycle of violence, once begun, is almost impossible to stop" (p. 42).

### III. Legal and Normative Framework for Addressing and Preventing Violence

The Mexican State's commitment to promoting and guaranteeing women's rights to live free of discrimination and violence, as well as fulfilling international obligations, is reflected in Mexican legislation (SRE, 2012).

Article 17 of the Mexican Constitution states:

No person shall take justice into their own hands or use violence to claim their rights. Everyone has the right to have justice administered by courts, which shall operate promptly, impartially, and at no cost (Unidad General de Asuntos Jurídicos, 2008).

Key legislative instruments within Mexico's legal framework to combat discrimination and violence against women include:

- Federal Law to Prevent and Eliminate Discrimination
- General Law for Equality Between Women and Men (2006)
- General Law on Women's Access to a Life Free of Violence (February 2007)
- Regulation of the General Law on Women's Access to a Life Free of Violence (March 2008)
- Law to Prevent and Punish Human Trafficking (November 2007)
- Regulation of the Law to Prevent and Punish Human Trafficking (February 2009)

In addition, Mexico has several significant legal frameworks, including the **Political Constitution of the United Mexican States**, the **Convention on the Rights of the Child**, and the **General Law on Education**. Specific to Veracruz, the **Law on the Rights of Children and Adolescents (Law 573)** and the **Law on Prevention and Attention to School Bullying (Law 303)** represent fundamental regulatory documents. These laws mandate the educational community's responsibility to safeguard the physical, emotional, and social integrity of children and adolescents in schools, ensuring their right to a life free of violence and access to education (SEV, 2019, p. 9).

The **Federal Penal Code (Article 325)** defines *femicide* as:

The crime of femicide is committed by anyone who takes the life of a woman for gender-related reasons. Perpetrators face 40 to 60 years of imprisonment and fines of 500 to 1,000 days. In addition, offenders lose all rights concerning the victim, including inheritance. If femicide cannot be proven, homicide regulations will apply (SEV, 2019, p. 15).

The **General Law on Women's Access to a Life Free of Violence** specifies the duties of the Secretariat of Public Education:

1. To incorporate principles of equality, equity, and non-discrimination into educational policies, ensuring full respect for human rights.
2. To develop educational programs at all levels that promote a culture of living free from violence against women, respect for their dignity, and the understanding of shared responsibilities in parenthood and child development (DOF, 28-01-2011).

### **3.1 Protocols for Action in Cases of Violence in the State of Veracruz**

The regulatory provisions for addressing school bullying in basic education within the state of Veracruz include protocols for handling acts of violence such as bullying, child abuse, and sexual misconduct. The 2019-2024 plan aims to provide a tool outlining preventive actions and immediate intervention procedures. These protocols standardize the responses of school authorities, educational agents, and school staff, ensuring legal certainty in their actions and full respect for the human rights of all involved (SEV, 2019, p.9).

These provisions prioritize safeguarding the best interests of children, adolescents, and adults enrolled in any level of mandatory education. All parties involved in conflicts or issues have the right to be heard and assisted by an advocate. Disciplinary measures applied must align with proportionality and fully respect their human rights (SEV, 2019, p.14).

Disciplinary measures are defined as: *“consequences of a normative and formative nature applied to a student for breaching a rule of coexistence, aimed at promoting a change in behavior”* (SEV, 2019, p.11).

### **3.2 Law 303 against school bullying in the State of Veracruz de Ignacio de la Llave**

This law, of public interest and social relevance, seeks to prevent and eradicate school bullying in public and private educational institutions in the state. It asserts that a violence-free environment is fundamental to respecting human rights, consolidating democracy, and ensuring principles of equity, non-discrimination, human dignity, and peace among students. Every student has the right to a school environment free from bullying and violence (Law 303, 2011, art. 1).

Regarding the role of educators, the law mandates: *“Any member of the school staff must immediately inform the school principal of any case of bullying or retaliation they witness or become aware of”* (Law 303, 2011, art. 27).

Additionally, the law emphasizes the responsibility of school authorities, teaching staff, administrative personnel, and support staff to respect and create conditions that guarantee the protection and human rights of children and adolescents. This obligation extends equally to all, ensuring there is no tolerance for any form of violence against them.

Beyond legal obligations, educational staff must develop full awareness and sensitivity to the critical role their functions play in preventing and addressing diverse situations of violence. Their commitment to safeguarding the well-being of children and adolescents, including those from Indigenous communities and students with disabilities, is paramount (SEV, 2019, p.8).

## **IV. Affirmative strategies to address various forms of violence**

In Mexico, violence increased in 2021 compared to the previous year, with a rise of at least 11% in crime rates and an 8.5% increase in the number of victims. This marked the second-highest number of reported cases in a decade, despite a steady decline since 2012. While several prevention programs are in place, urgent and more effective measures are needed to guide citizens and reverse this alarming trend.

Affirmative actions are public policies designed to compensate for disadvantages and discrimination faced by specific social groups, ensuring their full exercise of rights. Also known as "positive actions," "corrective measures," or "positive discrimination," these initiatives aim to accelerate substantive equality between women and men. Article 5, Section I of the General Law for Equality Between Women and Men defines affirmative actions as:

*"A set of temporary corrective, compensatory, and/or promotional measures aimed at accelerating substantive equality between women and men."*

The temporary nature of affirmative actions depends on the results expected to be achieved rather than predetermined decisions. These measures will cease only when the issue is resolved and sustainable, long-term outcomes are attained.

Some of the main strategies include:

- Special actions to facilitate access to credit.
- Holding positions of political representation.
- Providing special scholarships for women, girls, and adolescents.

#### **4.1 Affirmative actions within the Benemérita Escuela Normal Veracruzana**

A pressing question is: What actions have been taken at the Normal Veracruzana to address, prevent, and eradicate the various forms of violence identified within its community? Notable initiatives include:

1. **Establishing a Gender Studies Center (March 2013):** This pioneering effort introduced a gender perspective at the Normal Veracruzana, the first of its kind in the country.
2. **Impacting all substantive areas:** Teaching, research, dissemination, and extension aligned with the institution's mission and vision as a higher education institution for training teachers in basic education.
3. **Designing and implementing an elective course on gender education:** Offered to students in Preschool and Primary Education degree programs as part of the 2012 curriculum.
4. **Organizing seminars, workshops, and diploma programs:** All focused on gender perspectives and directed at the entire Normal Veracruzana community, including teachers, students, administrative staff, and service personnel.
5. **Creating an Academic Group:** Focused on research lines like cultural diversity and gender equality, evolving into Intercultural Studies in Innovation and Teacher Training.
6. **Producing academic materials:** Articles, book chapters, and conference presentations at national and international forums to promote a serious gender perspective.

7. **Developing informative materials:** Flyers, brochures, and posters with pertinent information on handling violence cases, including whom to contact and which institutions to approach.
8. **Establishing a Mediation Space:** A supportive environment for listening, guidance, and legal referral following established protocols for violence cases.
9. **Participating in training initiatives:** Promoted by the Directorate of Normal Education in Veracruz and the DEGSuM in Mexico City, focusing on implementing actions with discretion and sensitivity to human pain while avoiding victimization.
10. **Positioning gender perspectives at the center of discussions:** As a teacher training institution, this initiative directly influences improved intercultural pedagogical practices, particularly those grounded in gender perspectives and human rights.

A study conducted by specialists and professors at Harvard University analyzed over 1,400 studies and interventions to reduce violence, focusing on three fundamental perspectives: 1) examining the places where violence occurs, 2) observing violent individuals, and 3) analyzing their behavior, including access to weapons and involvement in drug-related activities (Lee, 2022).

The authors of this manual emphasized the need to move away from thinking solely about eliminating violence from communities or controlling violent areas. Instead, they highlighted that violence is often concentrated in specific areas and caused by particular individuals within different groups (Lee, 2022). Their recommendations include:

1. Moving beyond crime prevention based on geographic polygons.
2. Developing community intelligence capacities.
3. Prioritizing educational activities over public space investment.
4. Leveraging existing programs from the Ministry of Education, such as *Construye T*, for crime prevention interventions.
5. Allocating sufficient resources to prevention programs, noting that the main crime prevention program in Mexico (*Pronapred*) faced a 25% budget cut.
6. Shifting the focus of the war on drugs to a war on arms.
7. Implementing a unified command system with a local vision.
8. Evaluating impact based on evidence.
9. Integrating crime prevention into judicial reform.
10. Moving away from community policing and the "broken windows theory." The *broken windows theory*, which advocates for exemplary punishment of minor criminal behaviors, has proven ineffective. Communities often perceive punitive policing as intrusive rather than supportive.

## 4.2. Promoting personal care among normalist students

The World Health Organization (WHO) defines violence as:

The intentional use of physical force or power, threatened or actual, against oneself, another person, or a group or community, which results in or has a high likelihood of resulting in injury, death, psychological harm, developmental disability, or deprivation" (WHO, 2006, p.5).

Violence is a preventable public health issue. Like other health problems, violence is not uniformly distributed across population groups or environments. Various subtypes of violence, including gender-based violence, share common risk factors, root causes, and consequences, necessitating a comprehensive, preventive, and scientific approach (Secretaría de Salud, 2006).

In Mexico, the 2022 National Survey on Health and Nutrition (ENSANUT), conducted by the National Institute of Public Health, provides critical data on the health and nutritional conditions of the Mexican population. This landmark study offers annual insights that help understand the broader health landscape in Mexico (p.1).

The 2003 *World Health Report* states:

The public health sector is directly involved with violence, not only because of its enormous impact on health and healthcare services but also due to the significant contributions public health workers can and should make in mitigating its effects. Public health can benefit from preventive efforts in this area, applying a scientific focus, coordinating multidisciplinary and multisectoral efforts, and ensuring the availability of services for victims. Public health complements existing reactive approaches to violence by addressing the behavioral, social, and environmental factors that contribute to it.

In the educational sector, addressing, preventing, and eradicating all forms of violence is increasingly recognized as essential for creating healthy learning environments. However, these efforts must be supported by public policies and strategic alliances between the health and education sectors. Continuous prevention programs that build on successful experiences are vital for maintaining momentum and adapting strategies to the needs of educational actors, who play a fundamental role as agents of change.

The COVID-19 pandemic underscored the importance of personal care and revealed social inequalities, particularly for those without formal employment or access to healthcare. Many students lack access to health services to address illnesses, injuries, or physical and psychological issues arising from violence. As such, emergency and trauma response systems are crucial components of comprehensive violence prevention and management.

Personal care is vital for overall well-being, enabling individuals to feel physically and emotionally balanced and to face challenges more effectively. This includes practices such as maintaining a balanced diet, regular exercise, adequate sleep, and effective stress management.

Normalist students recognize that personal care is critical for maintaining a balance between body and mind. Healthy habits, such as good nutrition and physical activity, not only boost

energy and physical strength but also positively impact mental health by releasing endorphins that reduce stress and anxiety. Additionally, personal care enhances self-esteem and confidence.

Devoting time to personal care reflects self-respect and value, enabling individuals to tackle daily challenges with a positive attitude. Attention to appearance can also improve confidence in social and professional interactions, fostering healthier relationships between students and teachers and contributing to violence-free learning environments. In summary, personal care is essential for effectiveness in responsibilities and relationships, as well as for maintaining overall health and well-being.

### **4.3. The Importance of family and social context in violence prevention**

The 2012 curriculum for the bachelor's degree in preschool education emphasizes, through courses such as *Attention to Diversity*, *Civic Education*, and *Educational Inclusion*, the importance of understanding the family and social contexts in which normalist students develop. This highlights the significance attributed to housing and the values that set a precedent, particularly as stated in the program's background: "*The training of basic education teachers must respond to the social, cultural, scientific, and technological transformation taking place in our country and the world*" (DGESuM, 2012, para.1).

School violence is a socially learned behavior that extends beyond a mere desire to dominate others. Studies have shown that the learning children acquire in their family environment is intricately linked to future patterns of aggressive behavior (Varela et al., 2009, p.25). In teacher professional training, emphasis is placed on context as a factor influencing student behavior within the classroom. As Varela et al. (2009, p.25) note: "*When children grow up exposed to violence within their families, neighborhoods, schools, and even through the media, they may develop violent behaviors as learned responses.*"

The profile for teacher education graduates mentions competencies related to addressing school violence, such as fostering and regulating inclusive learning spaces to promote coexistence, respect, and acceptance, as well as acting ethically in diverse situations encountered in professional practice. Teacher training is envisioned within the framework of a critical intercultural educational approach, which emphasizes recognizing diversity as an asset, fostering intercultural dialogue to achieve equity and equality within the normalist community.

An important international reference is the *2030 Agenda for Sustainable Development*, highlighted by CEPAL (2019). This agenda, which includes 17 goals and 169 targets, presents an ambitious vision of sustainable development by integrating its economic, social, and environmental dimensions. The *2030 Agenda* is a transformative initiative centered on equality and human dignity, calling for a shift in our development approach while respecting the environment (p.7). Notably, Goals 3 (*Health and Well-Being*), 5 (*Gender Equality*), and 16 (*Peace, Justice, and Strong Institutions*) are related to the themes explored in this analysis.

## V. Methodology

Research, as defined by Tamayo (2004), is a process that uses the scientific method to obtain relevant information that helps understand, verify, apply, or correct knowledge. This study employed quantitative research, which facilitates the collection of numerical data to gather sufficient information about the student population under study. The methodological design of this study is non-experimental, descriptive, and cross-sectional, aimed at analyzing and reflecting on opinions regarding violence prevention measures and their impact on the personal care of students at the Normal Veracruzana.

Participants in this study included students from the five bachelor's degree programs offered at the *Escuela Normal Veracruzana Enrique C. Rébsamen*: Preschool Education, Primary Education, Physical Education, Secondary Education with a specialization in Telesecundaria, and Special and Inclusive Education. While the student population is large, a convenience sample was used to include at least ten students per degree program. This approach serves as an initial exploration, with plans for broader research in the future.

Descriptive studies focus primarily on describing social and educational phenomena within specific contexts and timeframes. These studies differ from others in that their questions target the subjects or situations under investigation. As Cauas (2015) states: "*These types of studies aim to specify the key characteristics of individuals, groups, communities, or any phenomenon subjected to analysis*" (p.6).

This research aims to assess normalist students' perceptions of violence prevention measures and their impact on personal care identified at home. It also examines whether students are aware of the rights violated in instances of violence and whether they know which institutions to approach when facing such situations. Additionally, the study highlights affirmative actions implemented by the *Benemérita Escuela Normal Veracruzana* and underscores the importance of the family context in which students are situated.

Various techniques exist for gathering information; in this study, the survey was chosen as the most appropriate method. As García (1993) explains, the survey uses standardized research procedures to collect and analyze data from a representative sample of a broader population. This technique enabled greater reach among normalist students at the *BENV Enrique C. Rébsamen*. Given the post-pandemic context, a digital instrument was considered the most viable and practical approach.

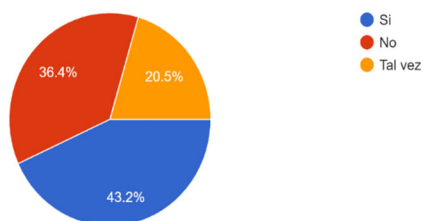
A Google form was chosen for its ease of use and accessibility, as it could be shared via mobile devices while maintaining respondent anonymity. This approach ensured broad participation among normalist students from all five degree programs, facilitating data collection in an organized manner.

## VI. Results

The preliminary results highlight a substantial collection of data; however, for the purposes of this chapter, only the most relevant figures are presented. These focus on the core issue initially posed: analyzing students' opinions regarding the measures for addressing and preventing violence and placing their impact on personal care and professional training at the center of the academic debate, particularly as future educators in basic education.

**Figure 1.**  
*Understanding of measures against violence at the Benemérita Escuela Normal Veracruzana (BENV).*

13.-¿Conoce si en la Escuela Normal, cuentan con algunas medidas para atender casos de violencia?  
 44 respuestas

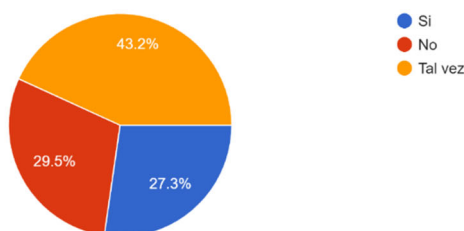


Source: own elaboration.

In figure 1, it is observed that in response to Question 13, at least 43.2% of the surveyed students acknowledge the efforts undertaken within the *Benemérita Escuela Normal Veracruzana* (BENV) to address cases of violence. This recognition reflects the dissemination and outreach work conducted by the *Centro de Estudios de Género* (CEGENV) through the school bulletin and the information board, openly accessible to the entire community.

**Figure 2.**  
*The existence of protocols at the Benemérita Escuela Normal Veracruzana to address cases of violence.*

14.- ¿Considera que la Escuela Normal tiene protocolos para atender casos de violencia?  
 44 respuestas

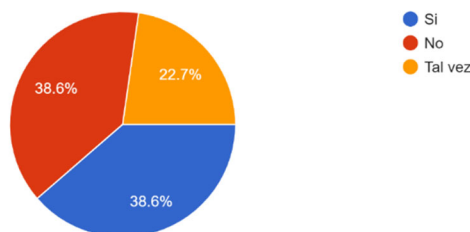


Source: own elaboration.

In figure 2, concerning question 14, which asked about the existence of protocols within the *Escuela Normal* to address cases of violence, it can be observed that only 27.3% of respondents mentioned "yes," while 43.2% answered "maybe." This adds up to 70.5% of the student body who trust that the institution has action protocols in place to address unfortunate situations if necessary. The remaining 29.5% will likely become informed about these protocols soon.

**Figure 3.**  
*On the functions performed by CEGENV.*

15- ¿Conoce las funciones del Centro de Estudios de Género de la Normal Veracruzana?  
 44 respuestas

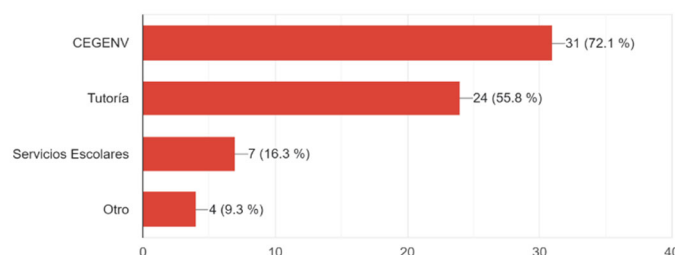


Source: own elaboration.

In figure 3, regarding question 15, it can be observed that despite the extensive dissemination of information about the existence and operation of the **Gender Studies Center** at the Escuela Normal Veracruzana (CEGENV), 38.6% of the 44 respondents stated that they could not describe its functions. This suggests that while they are aware of its existence, they lack clarity about the work it performs. Adding the 38.6% who said "yes" to the 22.7%, a total of 61.3% recognize the CEGENV's existence. This indicates that they are aware of the center, even if they have not found it necessary to seek its guidance. This could reflect positively, as it suggests that these individuals may not have experienced any form of violence, which is highly fortunate.

**Figure 4.**  
*Spaces and areas for addressing and preventing violence.*

16.-Desde que espacios áreas de la Normal, considera se impulsan mecanismos de atención y prevención de las violencias  
 43 respuestas

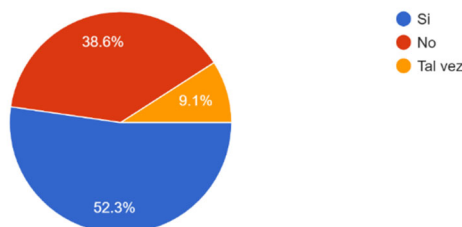


Source: own elaboration.

In figure 4, regarding question 16, when students were asked about which spaces or areas within the **Escuela Normal** they believe promote mechanisms for addressing and preventing violence, it was found that the **CEGENV** holds the highest prominence with 72.1%. The tutoring area ranked second with 55.8%, while **Student Services**, another frequently accessed area by students, ranked third with 16.3%. Finally, 9.3% referred to other spaces, which could include personal approaches to professors or authorities who then guide students to the appropriate resources and provide the necessary support.

**Figure 5.**  
*Regarding where to seek help in case of experiencing any type of violence.*

17.- ¿Sabe a dónde acudir en caso de sufrir algún tipo de violencia en la BENV?  
 44 respuestas

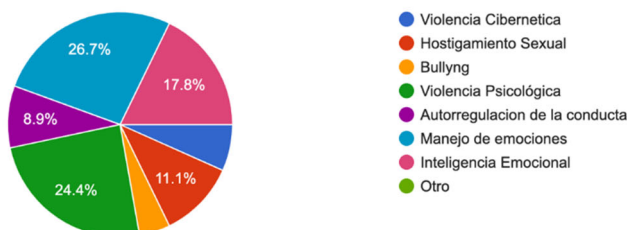


Source: own elaboration.

In figure 5, regarding question 17, students were asked whether they have the necessary information to identify where to seek help if they experience any type of violence, either within or outside the **Normal Veracruzana**. The results show that 52.3% answered "yes," while an additional 9.1% responded "maybe," resulting in a total of 61.4%. This aligns with those who identified the **CEGENV** as a valuable resource for obtaining information and guidance in the event of experiencing any form of violence.

**Figure 6.**  
*On Topics of Violence and Health Care.*

21.-¿Cuáles son los temas sobre violencia y cuidado de la salud, de los que te gustaría tener mayor información?  
 45 respuestas



Source: own elaboration.

In figure 6, when students were asked question 21 regarding violence and its relationship with health care, it is noteworthy that the highest-scoring form of violence was **cyber violence**, at 26.7%. This is understandable given that technology is the most common way students interact with one another. Following closely, **psychological violence** scored 24.4%, recognized as one of the most severe forms of violence due to its concealed nature. It progresses internally, leading to emotional and mental impacts such as stress, depression, and behavioral instability.

Additionally, the need for **emotional intelligence education** was highlighted, with 17.8% of respondents expressing interest, and 11.1% noted concerns about **sexual harassment**, a form of violence that is present but often underreported by students. The expressed interest in learning about these topics suggests an awareness and a desire among students to

understand these issues, potentially related to personal experiences or the need to know how to act and where to seek help when facing such situations.

## VII. Analysis and Discussion

The research findings reveal several important insights regarding the perceptions and awareness of normalist students about violence and its impact on their education and well-being. Below, the most relevant results are analyzed and discussed:

**Awareness and Knowledge of Prevention and Response Measures.** Figure 1 shows that 43.2% of students acknowledge the work undertaken by the *Escuela Normal* to address cases of violence. This reflects effective dissemination efforts by the *Centro de Estudios de Género* (CEGENV), although more work is needed to achieve greater awareness and knowledge among all students.

**Protocols for Addressing Violence Cases.** Figure 2 reveals that 27.3% of students confirm the existence of protocols for addressing violence, while 43.2% respond with "maybe." This indicates a lack of clarity or information among students regarding available resources, which is critical, as the existence and awareness of these protocols are fundamental to ensuring a safe environment.

**Functions of the Centro de Estudios de Género (CEGENV).** Figure 3 shows that while 61.3% of respondents recognize the existence of the CEGENV, 38.6% are unsure about its functions. This suggests a need for greater dissemination and clarity about the CEGENV's role to ensure students fully understand its purpose and the services it offers.

**Spaces and Areas for Addressing and Preventing Violence.** According to Figure 4, CEGENV is the most recognized space (72.1%) for addressing and preventing violence, followed by the tutoring area (55.8%). This preference suggests that these spaces are viewed as trusted and accessible resources for students.

**Knowledge of Where to Go in Cases of Violence.** Figure 5 indicates that 61.4% of students know where to seek help in cases of violence. While this is positive, it also highlights that a significant portion of students may still lack this critical information, potentially compromising their safety and well-being.

**Types of Violence and Their Impact on Health.** Figure 6 highlights that cyber violence (26.7%) and psychological violence (24.4%) are the most recognized forms of violence, followed by the need for education in emotional intelligence (17.8%) and concerns about sexual harassment (11.1%). These findings underscore the importance of addressing cyber and psychological violence in student education due to their prevalence and significant impact on mental and emotional health.

**Alignment with the 2030 Agenda for Sustainable Development.** The findings reflect alignment with the Sustainable Development Goals (SDGs) of the 2030 Agenda, particularly Goals 3 (Health and Well-being), 5 (Gender Equality), and 16 (Peace, Justice, and Strong Institutions). The research highlights the need to ensure safe and equitable educational environments that promote gender equality and protect students' rights. Additionally,

implementing clear protocols and strengthening educational institutions are essential to achieving these goals.

## **VIII. Conclusions**

This research successfully contributes to the educational discourse surrounding measures for addressing and preventing violence at the *Escuela Normal*. These measures have positively impacted the personal care of students and the broader *normalist* community, fostering healthy environments conducive to relationships free of violence and promoting a culture of peace.

Violence has historically been an omnipresent phenomenon, leaving immediate effects on individuals' health and personal well-being. Understanding the association between various types of violence, risk situations, and personal care is essential due to the significant social costs linked to violence. This reality is evident across various spheres of daily life, including the home, workplace, public and private life, and all educational levels, affecting societies worldwide.

Addressing different forms of violence has become an international priority, reflected in global agendas. It is crucial to identify diverse methodologies, responses, and actions to tackle this phenomenon across all environments where it may arise, especially in natural spaces such as homes, schools, and other social settings.

In this regard, it is essential to integrate a gender perspective and a human rights approach across all actions within educational institutions. This underscores the critical role of families working in harmony with affirmative actions to prevent violence in its various forms and to promote the personal care of the entire educational community.

Furthermore, these principles must be harmonized through the pedagogical models adopted by the *Escuela Normal*, employing an intercultural and critical approach. This will enable the advancement of future educators committed to designing inclusive and respectful pedagogical practices, contributing to the construction of a fairer and more peaceful society.

Although much remains to be done, each step forward in this reflection brings us closer to mitigating the phenomenon of violence, offering hope for a future where peaceful coexistence becomes a reality for all. This aligns with the social commitment of Higher Education Institutions, where future basic education teachers are trained. It emphasizes the importance of educating in collaboration with families and schools in a continuous dialogue that recognizes human diversity as a quality and wealth that enriches educational spaces, fosters learning environments, and ensures freedom from violence for the benefit of children and the educational quality of future educators.

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# Chapter 11. The TOEIC Test as an Innovative tool for Learning English as a Second Language

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## I. Introduction

In the educational field, Chile has historically faced various challenges related to the proper development of competencies in areas aimed at reducing existing educational gaps, which are primarily associated with the socioeconomic level of the student population. In this context, Chilean young learners must confront inequalities in the content received and its quality, with the goal of fostering their comprehensive development. These gaps become more evident when addressing a second language, such as English.

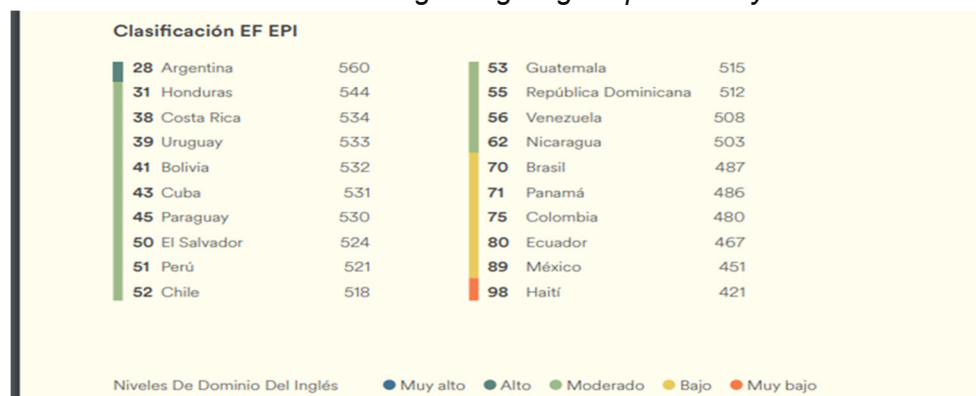
To address this, Chile launched the **National English Strategy** in 2014, set to run through 2030, with the objective of developing and strengthening second-language competencies within its population through four main pillars:

...fostering contact with the English language at home and in the everyday environment of our families and society; facilitating the development of effective communication strategies in English for students in early childhood, primary, and secondary education; ensuring that English teachers in the educational system meet the linguistic and methodological standards required by the country; and providing specialization alternatives in English to improve the competencies of professionals and workers in their jobs. (Government of Chile, 2014, pp. 6-7).

In this regard, statistics measuring the development of English language competencies and skills nationwide reveal that only 9.5% of Chileans are able to hold a conversation in English. Additionally, the country ranks 52nd out of 113 countries evaluated across different continents, placing ninth within Latin America (Education First, 2023).

**Figure 1.**

*Positions of Latin American countries regarding English proficiency.*



Source: Education First (2023).

Viña del Mar University (hereinafter UVM), in line with its institutional mission and adapting to new educational approaches, places student learning as its main academic focus. Within this perspective, the learning process is understood as a continuous enrichment of the student experience, where the role of the instructor is to guide and foster conditions for educational processes to be constructed meaningfully and with a forward-looking vision.

Additionally, the undergraduate academic program is structured through:

...disciplinary, professional, and transversal training, where, together with internships, graduation, and degree processes, skills for academic success and professional development are integrated. These contribute to making UVM graduates individuals of integrity, who value diversity and can successfully face institutional challenges and resolve discipline-specific/professional problems, while maintaining an interest in lifelong learning (UVM, p. 7).

The Cross-curricular Training at UVM is divided into three areas: Initial Training, General Training, and English Language Training. These areas, in their generic nature, offer curricular activities across all degree programs. Regarding English language training, the goal is to provide multiple high-quality learning opportunities to foster linguistic skill development that contributes to students' holistic, personal, and professional growth. This mission begins with inclusive pedagogy in its courses. Throughout their academic journey, students have opportunities to use English in various academic contexts, enabling them to improve their listening, speaking, reading, and writing skills in personal, academic, and professional spheres. This prepares them to successfully face future challenges.

The program is divided into four levels, corresponding to the transversal undergraduate courses English 1, English 2, English 3, and English 4, which are prerequisites for one another and are offered during the second and third year.

The importance of this program is tied to the UVM educational model, which promotes internationalization through systematic incorporation of intercultural learning activities in undergraduate and graduate programs. (UVM Curriculum Innovation and Evaluation Manual, 2015, p. 28)

To establish measurable instances demonstrating the development of English language proficiency in students, the TOEIC Bridge test was acquired in 2021 as a technological tool. It was applied as part of the English 4 course evaluation plan. The results were discouraging, with only 42% of participating students passing the test. As a result, the English Language Training Unit developed an improvement plan for the English 4 course, which gradually improved these outcomes. The results of this innovative initiative at UVM are presented below.

### **1.1. Cross-curricular English at UVM**

For over a decade, UVM has regarded the initial learning of the English language as an essential part of students' comprehensive education. This approach led to the incorporation of at least four academic periods for the development of this competency in the study plans of all degree programs offered between 2011 and 2014. Today, English language instruction is integrated into the curricula of the 36 degree programs currently offered, reflecting the achievement of learning outcomes aligned with the linguistic competencies established by the

Common European Framework of Reference for Languages (Instituto Cervantes for the Spanish translation, 2002).

**Table 1.**  
*Learning Outcomes in Transversal English at UVM.*

Module	Learning outcomes
English 1	<p><b>Level 1: Listening Comprehension and Oral Production.</b> After successfully completing Level 1 of Listening Comprehension and Oral Production:</p> <p><b>Listening Comprehension.</b> 1.LS.1 The student recognizes most common and concrete words, as well as short phrases in brief statements.</p> <p><b>Oral Interaction.</b> 1.LS.2 The student uses a limited set of practice scenarios, specific phrases for greetings, introductions, and farewells.</p> <p><b>Oral Production.</b> 1.LS.3 The student uses a limited set of practice scenarios, phrases, and expressions to describe family members and employs isolated words and phrases to identify objects or other items related to themselves and their close circle.</p> <p><b>Language Communicative Competence.</b> 1.LS.4 The student uses isolated words and phrases, focusing on correct pronunciation, intonation, and syllable stress.</p> <p><b>Level 1: Reading Comprehension and Written Expression.</b> After successfully completing Level 1 of Reading Comprehension and Written Expression:</p> <p><b>Reading Comprehension.</b> 1RW.1 The student recognizes familiar words and very basic phrases in simple texts of everyday use.</p> <p><b>Written Interaction.</b> 1RW.2 The student uses words and phrases to respond to very brief instructions or requests for various types of information.</p> <p><b>Written Expression.</b> 1RW.3 The student writes isolated words and phrases about themselves and their immediate surroundings.</p> <p><b>Language Communicative Competence.</b> 1RW.4 The student uses isolated words and phrases, focusing on correct spelling.</p>
English 2	<p><b>Level 2: Listening Comprehension and Oral Production.</b> After successfully completing Level 2 of Listening Comprehension and Oral Production:</p> <p><b>Listening Comprehension.</b> 2.LS.1 The student can follow simple and brief statements, questions, directions, and instructions about familiar topics that are expressed slowly, carefully articulated, and repeated, as necessary.</p> <p><b>Oral Interaction.</b> 2.LS.2 The student uses common expressions for greetings, introductions, questions, and farewells. They discuss specific, familiar, and personal topics related to immediate needs.</p> <p><b>Oral Production.</b> 2.LS.3 The student provides very basic descriptions of their occupation and information about where they live.</p> <p><b>Level 2: Reading Comprehension and Written Expression.</b> After successfully completing Level 2 of Reading Comprehension and Written Expression:</p> <p><b>Reading Comprehension.</b> 2RW.1 The student reads very brief texts, such as notices, descriptions, directions, and instructions, which mostly contain words, phrases, and expressions used in daily life.</p> <p><b>Written Interaction.</b> 2RW.2 The student writes and responds to short messages asking for details of personal information.</p> <p><b>Written Expression.</b> 2RW.3 The student writes simple texts with personal descriptions and other types of specific information.</p> <p><b>Language Communicative Competence.</b> 2RW.4 The student writes simple sentences and learned expressions with an appropriate level of accuracy in grammar, vocabulary, and punctuation.</p>

English 3	<p><b>Level 3: Listening Comprehension and Oral Production.</b> After successfully completing Level 3 of Listening Comprehension and Oral Production:</p> <p><b>Listening Comprehension.</b> 3.LS.1 The student can follow simple and brief statements, questions, directions, and instructions on familiar topics, expressed slowly, carefully articulated, and repeated as needed.</p> <p><b>Oral Interaction.</b> 3.LS.2 The student uses common expressions for greetings, introductions, questions, and farewells. They discuss specific, familiar, and personal topics related to immediate needs.</p> <p><b>Oral Production.</b> 3LS.3 The student provides very basic descriptions of their profession and information about where they live.</p> <p><b>Level 3: Reading Comprehension and Written Expression.</b> After successfully completing Level 3 of Reading Comprehension and Written Expression:</p> <p><b>Reading Comprehension.</b> 3RW.1 The student reads very short texts, such as notices, descriptions, directions, and instructions, which primarily consist of everyday words, phrases, and expressions.</p> <p><b>Written Interaction.</b> 3RW.2 The student writes and responds to short messages asking for details of personal information.</p> <p><b>Written Expression.</b> 3RW.3 The student writes simple texts with personal descriptions and other specific information.</p> <p><b>Language Communicative Competence.</b> 3RW.4 The student writes simple sentences and learned expressions with a proper level of accuracy and command of grammar, vocabulary, and punctuation.</p>
English 4	<p><b>Level 4: Listening Comprehension and Oral Production.</b> After successfully completing Level 4 of Listening Comprehension and Oral Production, students can:</p> <p><b>Listening Comprehension.</b> 4.LS.1 Understand the main points of short conversations and the most relevant information in recordings that are spoken slowly and clearly in a standard dialect.</p> <p><b>Oral Interaction.</b> 4.LS.2 Request and provide information on factual, everyday topics (work, leisure, directions) in somewhat brief routine social interactions, including making invitations and giving simple directions.</p> <p><b>Oral Production.</b> 4.LS.3 Produce descriptions about their family, real-life situations, academic level, work experience, and other personal information.</p> <p><b>Level 4: Reading Comprehension and Written Expression.</b> After successfully completing Level 4 of Reading Comprehension and Written Expression, students can:</p> <p><b>Reading Comprehension.</b> 4RW.1 Read and identify key details in simple texts (such as emails, excerpts, and instructions) that use high-frequency vocabulary.</p> <p><b>Written Interaction.</b> 4RW.2 Write and respond to short personal comments about specific needs and desires using a limited set of learned expressions.</p> <p><b>Written Expression.</b> 4RW.3 Write simple and short sentences that are connected to describe personal contexts and interests, recent experiences, plans, their immediate environment, and information about other people.</p>

Source: own elaboration based on UVM (2022) and Instituto Cervantes para la traducción en español (2002).

In this regard, UVM's Cross-curricular English program aims to provide diverse high-quality learning opportunities in the language, with the goal of developing linguistic competencies that contribute to the integral, personal, and professional growth of students. It promotes inclusive pedagogical management within curricular activities. Throughout their education, students practice English in various contexts, enabling them to develop listening, speaking, reading, and writing skills in both their field of study and everyday situations. This preparation equips them to successfully face challenges on both personal and professional levels. Key milestones are established during the educational journey, culminating in the certification of the student's English level through the international TOEIC Bridge test.

The goal of this educational pathway is for students to achieve A2+ and B1+ levels, with the curriculum structure allowing for a maximum of 32 hours of face-to-face instruction. The achievement of learning outcomes in English contributes to the development of linguistic competencies defined by the Common European Framework of Reference for Languages (Instituto Cervantes, 2002), focusing on the following four fundamental communication skills:

- Listening Comprehension.
- Oral Expression (Speaking).
- Reading Comprehension.
- Written Expression (Writing).

These skills are practiced in an integrated manner, fostering collaborative interaction among students while maintaining a focus on the individual learning outcomes each student must demonstrate. From a pedagogical perspective, our work is based on the Communicative Approach to language teaching and the Flipped Classroom methodology, which are the predominant instructional strategies employed in the classroom.

## **1.2. Communicative Approach**

This approach is based on the concept of communication as a process undertaken to achieve a specific purpose within a situational context that frames the relationship between participants. In this sense, it is understood that the rote learning of vocabulary and syntactic rules is insufficient for formulating and understanding messages in English; it is essential to apply this theoretical knowledge in practical language use (Cruz Ramos & Herrera Díaz, 2022).

Therefore, practical tasks are planned so that the language becomes a tool to achieve a communicative goal, promoting continuous feedback and self-regulation of learning through practice and peer interaction. According to Sirlopú Vera, Marrufo Rojas, and Ortega Cabrejos (2023), in English teaching, educators should design strategies where students take an active role, supported by consistent and formative guidance from the teacher. This approach ensures that students remain focused and motivated, self-regulating their cognitive processes to enhance learning.

## **1.3. Flipped Classroom Methodology**

The flipped classroom promotes autonomous learning, requiring students to prepare outside the classroom and subsequently present their ideas in class, sharing their interpretations of the studied material with their peers. This does not mean the teacher's role as a guide diminishes; rather, educators are encouraged to provide consistent feedback on progress and foster a trusting environment where students feel free to express their perceptions, questions, and concerns.

The success of this methodology heavily relies on technological resources. Teachers must carefully plan the learning strategy, preparing resources in advance, clarifying instructions, and being readily available to address questions. The methodology's focus is constructivist, viewing learning as a social process in constant transformation (Aguayo Vergara, et al., 2019).

#### **1.4. TOEIC Bridge International Test as a Technological Tool**

The use of ICTs in teaching English as a foreign language is critical for fostering interaction among students and motivating learning. It provides opportunities to observe native speakers in real-life contexts and even communicate directly with them (Grisales Aguirre, 2018). In this context, the TOEIC Bridge test offers a technological platform featuring everyday communicative activities, allowing participants to engage in common language-use situations through a cutting-edge methodology.

Additionally, this technology provides educators with a guiding framework regarding the communicative competencies needed to progress to higher levels, explicitly outlining the next steps and areas for improvement (ETS, 2024). Participants are also given access to two practice tests, which allow them to simulate the exam before taking it. This enables monitoring progress, analyzing areas for improvement, and demonstrating learning outcomes. The TOEIC Bridge test comprises 100 questions designed to assess up to B1 level, grading students based on the Common European Framework of Reference for Languages (Instituto Cervantes, 2002).

#### **II. Milestones in Cross-curricular English innovation**

Since 2021, UVM has certified undergraduate daytime students at A2+ and B1 English levels through the TOEIC Bridge test. This exam is included in the assessment plan for the English 4 course, contributing 15% of the total course grade. Conducted via the ETS (2024) technological platform, the test is administered in computer laboratories of the university.

The TOEIC Bridge test has systematically tracked each student's progress and demonstrated learning outcomes as communicative and flipped classroom-based strategies are implemented. These strategies aim to increase the number of certified students at A2+ level, standardizing evaluation criteria among faculty in alignment with the demands of the Common European Framework.

By providing a common framework for explicitly describing objectives, content, and methodology, the Framework of Reference enhances the transparency of courses, programs, and qualifications, thereby fostering international cooperation in modern language education (Instituto Cervantes, 2002, p.17).

A classroom improvement plan for English 4 was subsequently developed, aligning evaluation criteria and facilitating certification opportunities, which better prepare students to thrive in the professional world.

**Table 2.**

*Improvement Plan for TOEIC Bridge Certification - English Language Training.*

Generation	Initiative	Objectives	Results
2021	Implementation of TOEIC Bridge certification replacing UVM internal test	Certify students' exit-level English proficiency.	42% of students achieved A2+ level
2022	Incorporation of a preparation and training course for the standardized test in the final subject (ENGLISH 4) through the use of technology.	Increase the percentage of students reaching A2+ level through certification.	52% of students achieved A2+ level
2023	Inclusion of TOEIC Bridge PRACTICE TESTS and autonomous weekly work on the platform to strengthen training, in addition to the preparation course.	Increase the percentage of students reaching A2+ level through certification.	59% of students achieved A2+ level
2024	Inclusion of TOEIC Bridge PRACTICE TESTS, autonomous weekly platform work, and preparation course starting from the ENGLISH 3 subject.	Increase the percentage of students reaching A2+ level through certification.	In progress

Source: own elaboration.

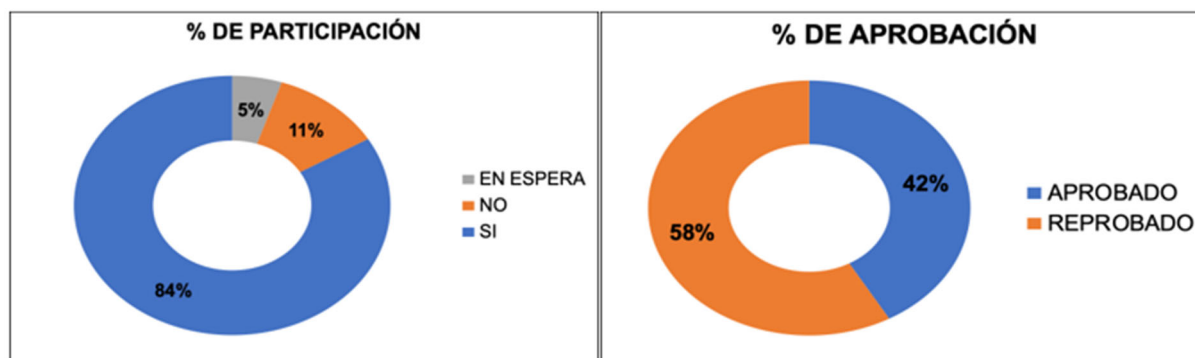
The improvement plan enriched the teaching-learning processes by integrating support resources and incorporating virtual environments aimed at fostering meaningful learning.02.

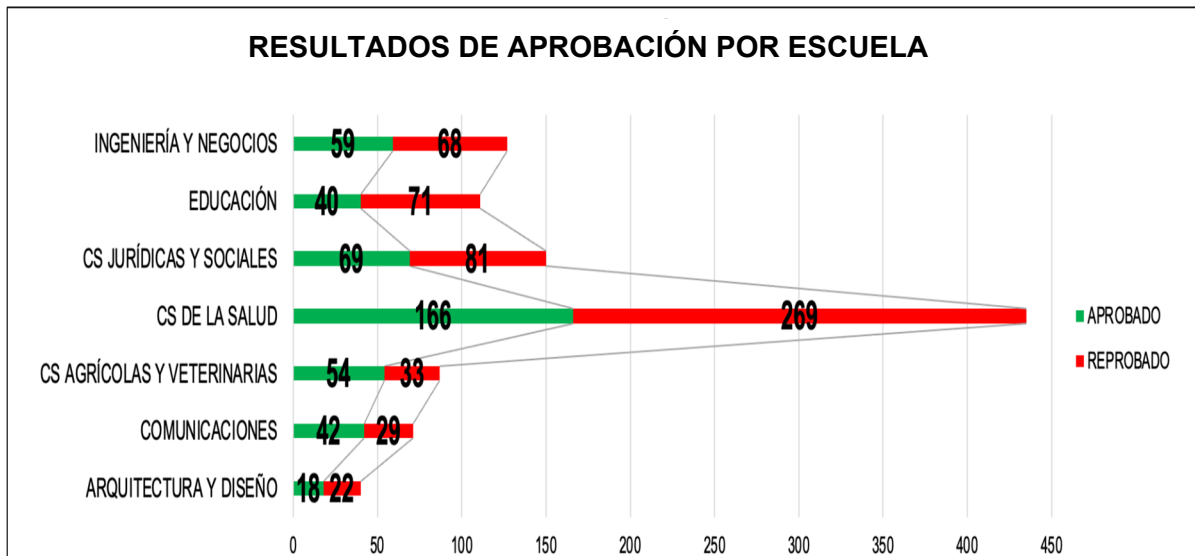
### 2.1. 2021 Generation

In 2021, 84% of the total UVM students took the TOEIC Bridge test. It is worth noting that the remaining 16% who did not participate were either students who had dropped out of the course or had already passed through other type of tests. The results are shown in Figure 1.

**Figure 2.**

*TOEIC Bridge results in 2021*





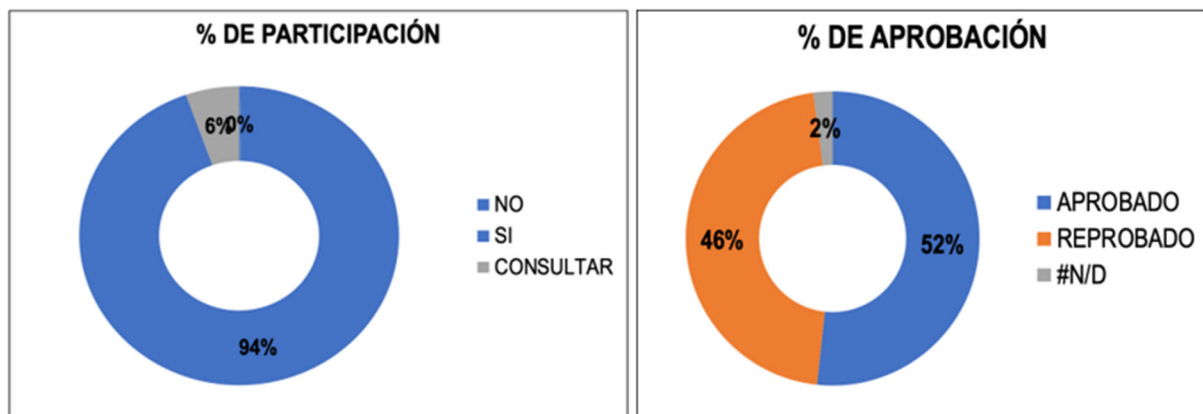
Source: own elaboration.

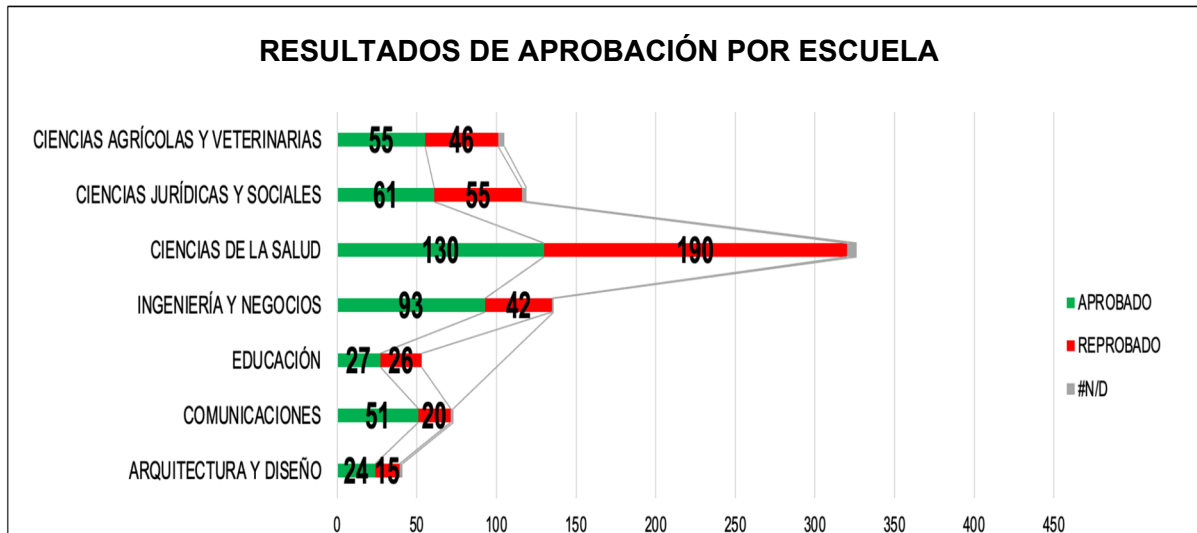
As shown in the graphs, all programs exhibited a high failure rate, and only 42% of students achieved A2+ certification.

## 2.2. 2022 Generation

In 2022, a preparation and training course for this standardized test was incorporated into the final course (English 4), using the communicative approach in the classroom and the Flipped Classroom methodology supported by ICTs. Following the implementation of this plan, 94% of the total students took the TOEIC Bridge test, yielding the following results:

**Figure 3.**  
 TOEIC Bridge Results for 2022.





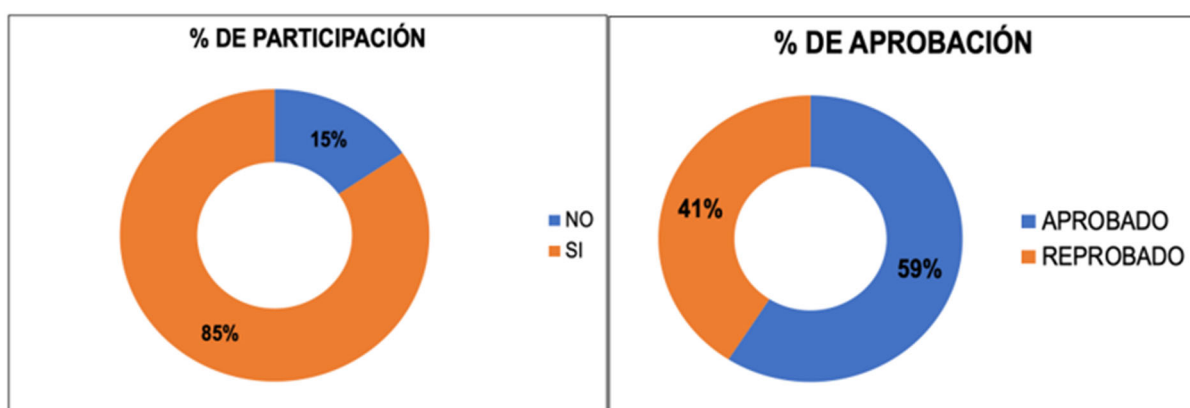
Source: own elaboration.

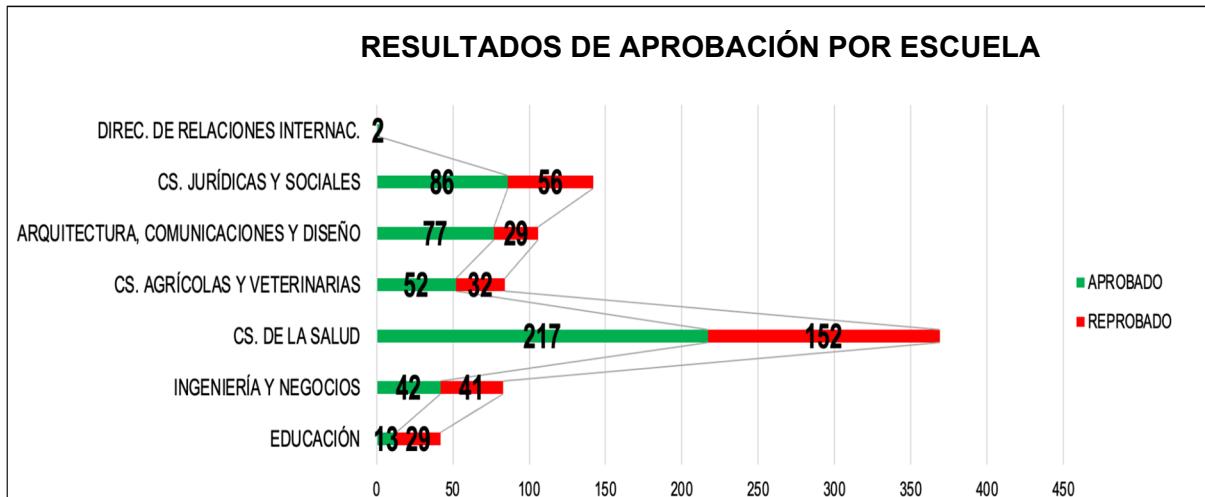
Compared to 2021, an improvement can be observed, as 52% of students achieved A2+ certification, and most Schools (faculties) reported a higher achievement rate than the failure rate.

### 2.3. 2023 Generation

In the following year, the TOEIC Bridge Practice Test was introduced, complemented by weekly autonomous work on UVM's educational platform (Blackboard). This addition strengthened the training already implemented in the English 4 course since 2022. Consequently, in 2023, 85% of the total student body took the TOEIC Bridge test, yielding the following results:

**Figure 4.**  
 TOEIC Bridge Results for 2023.





Source: own elaboration.

Once again, an improvement is evident compared to the previous year, with 59% of students achieving A2+ certification. Additionally, five out of the six Schools (faculties) reported a higher approval rate than the failure rate. Below are the achievement results by Schools since the implementation of the TOEIC Bridge test and the improvement plans in English 4.

**Table 3.**  
 TOEIC TEST Results by UVM Schools.

School / Faculty	2021	2022	2023
<i>Engineering and Business</i>	36%	68%	50,6%
<i>Education</i>	36%	50,9%	30,9%
<i>Legal and Social Sciences</i>	46%	51,2%	60%
<i>Architecture, Design, and Communications</i>	54,5%	65,7%	72,6%
<i>Agricultural and Veterinary Sciences</i>	54%	53,3%	61,9%
<i>Health Sciences</i>	38,1%	39,8%	58,8

Source: own elaboration.

### III. Conclusions

Higher Education demands maintaining a pace of updating similar to the constant evolution of technology, which is a great challenge considering the historical tradition of scientific knowledge in opposition to the exponential transformation of technological advances. It is known that the university academic world is far from matching that pace of acceleration, but even so, there is a constant effort to implement educational innovations, in order to guarantee students a quality education, aligned with social demands.

In the case of English language teaching, there is a growing challenge stemming from current global communications, as being the most widely used second language provides professionals who master it better opportunities for international projection. Hence the formulation of the Common European Framework, which standardizes the international measurement of language proficiency.

In line with this continental framework, the TOEIC Bridge test allows evaluating these competencies in participants, as it is a virtual platform capable of offering accurate and quantifiable results regarding participants' language proficiency. For the UVM the Cross-curricular English Program, the implementation of this test constituted an educational innovation, as it had not been applied before, and allowed for rigorous scientific measurement of students' learning outcomes.

Thus, it provided quantitative evidence of the effectiveness of the pedagogical approaches implemented from 2021 to 2023, enabling the teaching team to direct their classroom methodological efforts based on the requirements of the Common European Framework. This progressive practice evidenced the advancement and development of knowledge in the English language through simulations exercises that assess the international test, utilizing the Practice Test tool, which aims to demonstrate the effectiveness of the course's face-to-face sessions.

It is important to highlight that the communicative approach addressed for teaching English at UVM, which, while establishing oral skill development as one of its objectives, also includes language exposure through listening and reading comprehension.

This confirms the assertions by Sirlopú Vera, Marrufo Rojas, and Ortega Cabrejos (2023) about the importance of active student participation in progressively exercising the language with a predominantly functional perspective. In this context, students make oral presentations in English, simulating everyday conversations to practice pronunciation. This aligns with Aguayo Vergara et al. (2019), who emphasize the relevance of socialization in developing communicative competencies, as collaborative learning allows peer feedback, fostering a trusting environment for the free expression of perceptions, concerns, and achievements. Therefore, it is possible to affirm that the classroom methodologies employed, particularly flipped classroom and practice test under the communicative approach, demonstrated their significant contribution to achieving the learning outcomes of the English 4 course, as evidenced by the application of the TOEIC Bridge test. This required collaborative work between the academic coordination and the course instructors, who year after year learned from their own experiences, incorporating new activities, discarding others, and progressively updating classroom methodologies based on emerging theoretical proposals for language learning.

Finally, the TOEIC Bridge test is recommended as a reliable and effective measurement instrument that provides a guiding framework for learning English as a second language, contributing to unifying teaching and evaluation criteria, contextualized in the current global demands for English proficiency. Thanks to this innovation implemented at UVM, graduates have more opportunities for development both nationally and internationally, having a certification that validates the competencies achieved in English during their academic training.

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## Biographical Notes of the Book Coordinators



**Dr. Cristóbal Torres Fernández** holds a Degree in Foreign Language Teaching (English), a Degree in Pedagogy, and Degrees in Primary and Early Childhood Education. He also earned a Doctorate in Education with International Distinction from the Universidad Nacional de Tres de Febrero (Argentina). Dr. Torres Fernández has completed thirteen official master's programs in areas such as education, bilingual teaching, educational technologies, and linguistics. He currently serves as an Adjunct Professor at the Universidad Internacional de La Rioja (UNIR). He is Co-Director of the Educational Technology and Playful Experiences Research Group at UNIR. He has coordinated over 40 books and published more than 50 chapters in prestigious publishing houses, participated in Erasmus+ projects, and conducted international research stays in Latin America, Italy, and Portugal, focusing on educational systems and public policies. In teaching, he has led courses in Pedagogy and Education programs and supervised over 300 master's and bachelor's theses. He currently coordinates the Master's Program in Educational Technology and Digital Competencies at UNIR.



**Dr. Miguel Puig Cabrera** holds a Ph.D. in Geography (Department of Human Geography), specializing in the geography of tourism. He graduated with distinction *cum laude* and received the Extraordinary Doctorate Award (2019/2020) from the University of Seville, with International Mention. Since 2016, he has served as a consultant for public sector projects, focusing on strategic planning, sustainable tourism, Smart Cities, and Smart Tourist Destinations, including the management and acquisition of European funds. He has taught at other Spanish universities. He is the author of impactful publications and has delivered presentations at international conferences in Mexico, the United States, and the Dominican Republic. Currently, he is the Coordinator of the Degree in Humanities at the Universidad Internacional de La Rioja. His research focuses on the design and management of sustainable tourism development models aligned with sustainability, inclusion, and well-being.



**Dr. Harold Torrez Meruvia** holds a Ph.D. in Business Administration and Management from Universitat Ramon Llull, accredited by ANECA, with over 15 years of professional experience in business, academia, and business schools. International lecturer in undergraduate, master's, and doctoral programs, specializing in strategy, business management, marketing, human resources, and business model creation, as well as a supervisor of undergraduate and master's theses in both face-to-face and online formats. As a consultant for Spanish and Latin American companies, he specializes in strategy, business models, business planning, and internationalization. In the corporate sector, he has held executive and managerial positions. His research interests include teaching methodologies, competency evaluation, and new developments in marketing, resulting in publications in JCR- and SCOPUS-indexed journals, as well as in books, presentations, and conferences at national and international levels. He is currently part of research teams and a member of the Beta Gamma Sigma (BGS) Honor Society and the Research on National Brand & Private Label Marketing International Conference.



**Dr. María Guadalupe Ñeco Reyna** is a Doctor in Intercultural Studies from the National University of Distance Education (UNED) in Madrid, Spain, graduated with Honors and Cum Laude. Holds a Master's degree in Applied Psychology Research in Education and a Specialization in Human Development. Recognized under the PRODEP profile from 2018-2024-2030. Academic at the Universidad Veracruzana, affiliated with the Faculty of Pedagogy, and Lecturer at the "Benemérita Escuela Normal Veracruzana Enrique C. Rébsamen." Leader of the Academic Body "Intercultural Studies in Teacher Training and Innovation," with a consolidated level. Board member of the Ibero-American Network of Educational Research (RIBIE) based in Seville, Spain. Member of the Network of Researchers of the National System of Researchers and Ibero-America, headquartered at BUAP/Puebla. Guest lecturer for the Mirror Class program at César University in Peru. Member of the Women's Scientific Network, BUAP-Puebla. Member of the National System of Researchers (SNII) of CONAHCYT-MEXICO for 2022-2025. Currently serves as President of the Research Network of the Benemérita Escuela Normal Veracruzana (RIBENV 2023).



**Dr. Jaime Puig Guisado** is a professor in the Department of Language and Literature Didactics and Integrated Philologies at the University of Seville. He has completed master's degrees in Advanced Hispanic Studies, Teacher Training, Linguistic, Literary, and Cultural Studies, as well as a PhD in Philological Studies with a focus on nocturnal Mexican poetry. He has organized scientific events such as the International Conference "Juan Ramón Jiménez: Mi Rubén Darío" (Seville, 2015), the 21st Congress of the German Association of Hispanists "Spaces of Hispanism in a Globalized World" (Munich, 2017), and the biennial International Congress on Sexual and Gender Diversity in Education, Philology, and the Arts (Seville, 2019 onwards). He has been a visiting professor at universities in Iceland, Italy, and Mexico and has conducted research stays at Boston University, UNAM, and Tecnológico de Monterrey. Currently, he coordinates a Development Cooperation project on teaching Spanish in Sahrawi refugee camps. Additionally, he works in the field of Non-Formal Education and youth initiatives through the Humanitas Sevilla association, where he serves as vice president.

Transforming Education: Innovation for the 21st Century is a profound exploration of the evolving landscape of education in the digital age. Directed and coordinated by a team of esteemed multidisciplinary experts, this book serves as a guide for educators, researchers, and policymakers eager to adapt to the challenges and opportunities of the 21st century. By weaving together theoretical insights and practical applications, it offers a roadmap for creating innovative, inclusive, and impactful educational experiences.

Structured across eleven compelling chapters, the book delves into key themes that define the transformation of education. The Digitateen Project, for instance, investigates the digital competencies of secondary school students in Seville, shedding light on their technological habits and proposing actionable improvements. Proposals such as learning landscapes introduce smart and personalized environments, providing educators with dynamic tools to cater to diverse learning needs. These landscapes, combined with advancements in digital humanities, allow for the integration of storytelling, interactive methods, and digital repositories, thus fostering a deeper connection between technology and traditional disciplines.

The book does not shy away from addressing critical challenges. Chapters dedicated to the ethical implications of artificial intelligence and predictive studies on teachers' use of educational technology highlight the complexity of navigating these issues. Further, the role of families in education and innovative approaches to violence prevention underscore the importance of collaboration between schools, families, and society in shaping a holistic and safe learning environment.

At its core, the book emphasizes the necessity of balancing technical proficiency with ethical considerations. It advocates for an educational model that nurtures critical thinking, creativity, and responsible participation in a digitalized world. By proposing strategies that integrate technology while preserving human values, the book inspires a vision of education that prepares learners to thrive both personally and professionally.

Beyond diagnosing current challenges, this work offers pragmatic solutions and forward-thinking strategies. It encourages educators to embrace innovation while maintaining a strong commitment to equity and inclusivity. With its practical tools, case studies, and evidence-based insights, it stands as a vital resource for those striving to lead meaningful change in education.

This book, as well, invites readers to imagine a future where education is not only reactive to change but a proactive force for societal advancement. It challenges us to rethink how we teach, learn, and connect, positioning education as the cornerstone for building a more equitable and sustainable future.