The Effectiveness of a virtual learning environment on the perceptions of 11th-grade students about their preparation for the ICFES saber 11 text in English

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Abstract

This research explores how integrating a Virtual Learning Environment (VLE) as a training resource can influence 11-graders' perceived preparation levels for the English section of the ICFES State at the Instituto Técnico Jorge Gaitán Durán. The study analyzed the subjective experiences of learners as they prepared for the ICFES Saber 11 English test using the VLE training resource. It also examined the factors that influenced their perceptions of the effectiveness, benefits, and disadvantages of the VEL in improving their preparation for the ICFES Saber 11 English test compared to traditional preparation methods. A qualitative approach was used to explore how learners' self-efficacy and sense of readiness can boost their confidence to take the State test and drive positive changes within the specific context of Instituto Técnico Jorge Gaitán Durán. Classroom observations, focus groups, and open-ended questionnaires were utilized to gather detailed information on the experiences and perceptions of the students. The findings indicated an increased level of acceptance of the VLE-based strategy among students as well as its effectiveness in promoting learners' self-efficacy and self-efficacy and overall sense of preparedness to take the exam.

Keywords: Virtual Learning Environment (VLE), ICFES Saber 11°, Student Perceptions.

Resumen

Este estudio explora cómo la integración de un Entorno Virtual de Aprendizaje (EVA) como recurso de formación puede influir en la percepción de los estudiantes de grado 11 sobre su nivel de preparación para la sección de inglés del examen estatal ICFES en el Instituto Técnico Jorge Gaitán Durán. El estudio analizó las experiencias subjetivas de los estudiantes mientras se preparaban para el examen ICFES Saber 11 de inglés utilizando el recurso de formación del EVA. También examinó los factores que influyeron en sus percepciones sobre la efectividad, ventajas y desventajas del EVA en comparación con los métodos tradicionales de preparación. Se utilizó un enfoque cualitativo para explorar cómo la autoeficacia y el sentido de preparación de los estudiantes pueden aumentar su confianza para presentar el examen estatal y generar cambios positivos dentro del contexto específico del Instituto Técnico Jorge Gaitán Durán. Se emplearon observaciones en el aula, grupos focales y cuestionarios abiertos para recopilar información detallada sobre las experiencias y percepciones de los estudiantes. Los hallazgos indicaron un mayor nivel de aceptación de la estrategia basada en el EVA entre los estudiantes, así como su efectividad para promover la autoeficacia y el sentido general de preparación para el examen.

Palabras claves: Entorno Virtual de Aprendizaje (EVA), ICFES Saber 11°, Percepción de los Estudiantes.

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Introduction to the Research Study

In today's society, it is not enough to speak one's mother tongue; social dynamics demand that citizens participate in continuous linguistic training. This skill will allow people to advance in different social and professional contexts. In this sense, the educational system must strive to formulate and apply strategies, resources, and scenarios that allow each student to enter the world of knowledge and languages. However, even though these premises are known and managed by people in general, there are times when obstacles, barriers, and elements arise that prevent learning from occurring in a meaningful way.

There are several challenges in contemporary education, including a worrying trend of declining student motivation in traditional learning environments (González et al. 2021). This can cause disengagement and hinder academic performance. To address this, innovative methodologies are emerging that harness the power of technology and virtual environments (VEs). Organizations such as UNESCO (2023) have documented the use of VE in education, highlighting its potential to create immersive and interactive learning experiences. These VEs can adapt to various learning styles and offer a more engaging alternative to traditional methods. These VEs, with their various tools and features, can create dynamic, engaging, playful, and interactive learning spaces, according to García, et al. (2023), students of the "digital native" generation respond best to dynamic and interactive learning experiences. VEs, with their ability to incorporate multimedia elements, games, and simulations, can effectively create these engaging spaces.

Similarly, the proposed methodology allows the creation of emerging statements that will constitute the basis of the research: Design and apply a Virtual Learning Environment (VLE) as a training tool for the English language section of the ICFES State Test for students from 11th

grade; Describe the subjective experiences and perceptions of 11th-grade students regarding their level of readiness for the ICFES Saber 11 English test after completing the Virtual Learning Environment-based training tool, and to determine the factors influencing students' perceptions of the effectiveness, benefits, and drawbacks of the Virtual Learning Environment in enhancing their preparation for the ICFES saber 11°. Previous research related to the proposed topic is also presented for each of them, and from their lines, it allows to give credibility to what is presented. Therefore, the research presented below invites readers to investigate, reflect, and become aware of the relevance of meaningful language learning for the integral development of individuals and, at the same time, how important it is to update students in the development of tests such as ICFES in order to correctly develop the questionnaires attached to them.

Context of the Research Problem

In the contemporary world, characterized by rapid globalization and technological advances, proficiency in English has become a fundamental skill. With more than 360 million native speakers, English is a vital language, particularly in fields such as technology and academia, where it serves as the primary medium. The need to learn English extends beyond everyday communication, playing a crucial role in accessing global opportunities and fostering scientific and technological progress (Celik and Solak, 2020) however, the traditional educational approach to teaching English has often failed to meet the diverse learning needs of students or foster adequate mastery, and passive teaching methods combined with standardized assessments fail to address the paces and needs of individual learning, resulting in poor learning outcomes. (Sifaleras and Lin, 2024).

Recognizing the transformative potential of technology in education, schools are urged to adopt innovative methodologies and tools to improve English language teaching. The integration

of technology not only expands learning beyond the boundaries of the classroom, but also facilitates dynamic and engaging learning experiences. (Tiwari, 2024). However, technology integration poses challenges, including the need to conceptualize the distinction between information acquisition and true knowledge acquisition (Belloch, 2016). Despite these challenges, the use of technology, particularly in learning English as a second language, has demonstrated positive and effective learning experiences (Infante, 2018; Morrissey, 2008). In the Colombian educational landscape, the importance of English proficiency has been underlined by national initiatives such as the National Bilingualism Program (PNB) initiated by the Ministry of Education (MEN) in 2004. However, challenges still persist, especially in the qualification and training of English teachers, which recreate a challenge for the pedagogical practice that has been adopted from the basic education guidelines and standards (MEN, 2013).

The gap between desired levels of English proficiency and students' actual performance on standardized tests, such as the ICFES English exam, underscores the need for innovative approaches to English language teaching (Barón & Bonilla, 2011). However, the connection between traditional teaching methods and students' interests and experiences exacerbates disengagement and low achievement in English language learning. In rural Colombian settings such as the Jorge Gaitán Durán Technical Institute, educators face the challenge of fostering student motivation and relevance in English language teaching amid limited access to resources and geographic restrictions (Chakawodza et al., 2024).

Taking into account the above, this research study arises from the need to offer a language teaching process relevant to the target population. Understanding students' perceptions of their preparation is vital to boosting their confidence and improving learning results. The main objective is to explore the perceptions of grade 11 students at the Jorge Gaitán Durán Technical

Institute regarding their readiness for the English test. Understanding students' perceptions and addressing their concerns thus allows them to integrate into the globalized world.

The educational difficulties at the Jorge Gaitán Durán Technical Institute in the town of Agua Clara, Cúcuta, Colombia, are complex and have strong ties to the history and purpose of the institution. Established four and a half decades ago, the institute has played a key role in offering specialized agricultural education to boost the economy of the town of Agua Clara. Over the years, this emphasis on education has influenced course content, with considerable focus and resources devoted to topics related to agriculture. However, although the institution has always prioritized agricultural education, subjects such as English have not been given the same importance, especially in terms of time and quality of instruction.

In this scenario, the academic performance of students in English, specifically in the Saber 11° test of the ICFES, poses a significant difficulty. The ICFES test evaluates various subjects such as English, as well as mathematics, critical reading, science, and social studies. Although While English proficiency is critical to academic and professional success in today's globalized world, this gap is a result of the institution's overall educational goals and teaching methods, underscoring the need for concentrated efforts to improve English language teaching and assessment.

A major factor adding to the difficulty in achieving English proficiency is the common belief among students that English is not necessary for their personal or professional success, especially since the community primarily emphasizes agriculture. This understanding is affected by students' participation in agricultural economic activities, which could reduce their perceived need for English language proficiency. Consequently, students may not have the internal drive to

succeed in English, resulting in a lack of interest and less-than-ideal performance on English assessments such as the ICFES exam.

Furthermore, the usual teaching methods used in English classes at the Jorge Gaitán Durán Technical Institute could cause students to develop a dislike for the subject. Employing traditional methods focused on memorization and repetition instead of encouraging genuine participation can diminish students' interest and impede their ability to learn a language (Mayoral-Valdivia2016). This educational dilemma highlights the importance of examining creative and engaging teaching approaches to improve English learning outcomes and foster student interest and skill development.

Deficiencies in students' language skills in English worsen the problem, along with motivational and pedagogical factors. Inadequate exposure to quality language teaching or limited resources for English language development within the curriculum can result in low levels of English proficiency and comprehension. These gaps affect students' results on standardized tests and also reduce their confidence and preparation for English language assignments and exams.

To effectively address these difficult challenges, it is essential to leverage students' current interests and love of technology during the learning process. The integration of mobile devices and virtual learning environments (VLEs) in English language teaching allows educators to develop engaging and personalized learning experiences for students. This method is in line with current teaching trends that focus on personalized and technology-integrated learning to improve students' engagement and skills in English. Furthermore, the possible incorporation of a VLE into the academic curriculum shows the potential to address the recognized problems related to English language teaching. A VLE can be used as a tool to deliver English language

lessons that are both exciting and interactive. It allows access to multimedia materials, interactive activities, and immediate feedback to help improve students' language skills and build their confidence. By adopting technology-based approaches, Instituto Técnico Jorge Gaitán Durán can close current disparities in English language learning and enable students to excel on the ICFES exam and beyond.

The educational environment of the Jorge Gaitán Durán Technical Institute highlights the importance of specific actions to improve English language learning outcomes and address current problems with student performance on the ICFES Saber 11° test. Educators can create innovative strategies by understanding the various factors that affect English proficiency, such as motivational obstacles, teaching methodologies, and language gaps, to improve student participation, readiness, and performance on English tests through technology and personalized learning.

A notable concern within the Jorge Gaitán Durán Institute of Technology is the consistently low scores observed on English proficiency tests among students. These poor performances not only reflect a gap in language skills, but also indicate a potential barrier to accessing higher education opportunities and global competitiveness. According to a study by García et al. (2023), addressing deficiencies in English proficiency is essential to improve students' academic achievements and broaden their career prospects in an increasingly interconnected world. Even when this study does not focus on the results of the IFES Saber 11, the process of training students seeks to make them aware of the importance of improving their English abilities due to the main purpose is to explore the students’ perceptions of the effectiveness of a VLE trying to connect them with the need to improve, the scores on the

English test demonstrate the low level of English of the students according to the CEFR, showing the need for improvement as shown in table 3.

Table 1

Percentage of Students by Performance Levels in English.

Aggregation level	Performance level				
	A	A1	A2	B1	B+
Educational Establishment (EE)	57%	37%	6%	0%	0%
Colombia	42%□	31%□	16%□	9%□	3%□
FTE	33%□	34%□	19%□	11%□	3%□
Official Urban FTE	33%□	37%□	19%□	10%□	2%□
Official rural FTE	57%□	33%□	8%□	2%□	0%□
Private FTE	29%□	28%□	20%□	18%□	6%□
GC 1 ETC	100%□	0%□	0%□	0%□	0%□
GC 2 ETC	41%□	37%□	15%□	6%□	1%□
GC 3 ETC	13%□	29%□	28%□	24%□	6%□
GC 4 ETC	2%□	5%□	17%□	49%□	28%□

Note. Saber 11th 2023 Results Jorge Gaitán Durán Institute of Technology

By taking proactive measures and working together, the institute can create a nurturing and lively learning atmosphere that enables students to succeed in a globalized world.

Research Question

What are 11th-grade students' perceptions of the integration of a VLE as a training tool for the English language section of the ICFES State Exam at the Jorge Gaitán Durán Technical Institute?

Sub-questions

What are the students' perceived levels of preparation for the ICFES Saber 11 English exam after completing the VLE-based training tool?

To what extent do students perceive the VLE to be beneficial in preparing them for the ICFES Saber 11 English exam compared to traditional preparation methods?

What are the key factors influencing students' perceptions of the effectiveness, benefits, and drawbacks of using the Virtual Learning Environment for preparing for the ICFES Saber 11 English test, as compared to traditional preparation methods?

General Objective

To explore how the integration of a Virtual Learning Environment (VLE) as a training tool enhances the preparation process for the English section of the ICFES State Exam among 11th-grade students at Jorge Gaitán Durán Technical Institute.

Specific Objectives

To design and apply a VLE as a training tool for the English language section of the ICFES State Test for 11th-grade students.

To describe the subjective experiences and perceptions of 11th-grade students regarding their level of preparedness for the ICFES Saber 11 English test after completing the Virtual Learning Environment-based training tool.

To determine the factors influencing students' perceptions of the effectiveness, benefits, and drawbacks of the Virtual Learning Environment in enhancing their preparation for the ICFES Saber 11 English test compared to traditional preparation methods.

Rationale of the Study

In today's interconnected world, globalization requires people to possess competitive skills, including proficiency in foreign languages such as English. Martínez (2003) maintains that language learning is not only important for professional opportunities, but also for personal growth, the enrichment of cognitive abilities, and exposure to diverse cultures. The Colombian

State has prioritized improving English acquisition processes in response to the worrying gap between students' English proficiency levels and desired standards. The 2019-2020 isolation period during the pandemic further weakened English teaching and learning, as evidenced by poor performance on SABER standardized tests. Recognizing the paramount importance of English in contemporary society, incorporating innovative strategies to motivate language learning has become imperative, a role that virtual learning environments (VLEs) can potentially fulfill through their engaging, contextual, and up-to-date approaches.

The Universidad Javeriana (2023) reveals that historically students have had a low performance in the English component of the ICFES exam, averaging only an A level according to the MEN guide through the National Bilingualism Program with 22 points since 2006, which stipulates a B1 level as a target for high school graduates. However, the comparison with the results obtained generates a discrepancy between actual performance and desired results.

Students' difficulties with the English exam are attributed to a lack of preparation tailored to their needs, low self-confidence in their English skills, and traditional instructional processes that do not align with students' needs, which generates demotivation and makes it difficult to prepare for what is at stake assessments such as the ICFES Saber 11 English exam. Based on the data presented in the report described above, other data provided by the Corporation for the Integration and Development of Education of the Colombian Southwest (2022) highlights the absence of a specific instrument to measure levels of bilingualism through inter-institutional studies. With this study, it is possible to review the results shown in Table 1.

Table 2

Interinstitutional Indices

EF EPI 2020 results – main cities			
City	Score	Level	CEFR
Medellin	492	Low	B1
Bogota	473	Low	B1
Cali	469	Low	B1
Colombia	448	very low	B1

Note. This table shows the EF EPI results for the year 2020 in four major Colombian cites. Own source.

With little variation, the nation consistently ranks at very low or low levels of bilingualism, averaging at level B1 in the CUFR. In light of these multifaceted challenges, innovative solutions such as incorporating VLE into curricula offer a promising avenue to revitalize English language education, fostering motivation, building confidence, and better equipping Colombian students with the language competencies they need. In the context of the I.T:J:G:D the results shown in Table 2 have been achieved in terms of learning English as a second language.

Table 3

Institutional English Results

Aggregation level	Average	Deviation
School	46	8
Colombia	52	12
Cúcuta Authority	54	12
Official Urban School of the City Council	53	11

Official Rural College of the City Council	46	9

Note. This table shows the institutional English results and their standard deviation in the English section of the ICFES Saber 11 exam. *Source*. data provided by ICFES, (2024).

Based on the main problem and research questions regarding the use of a VLE to progressively improve the historically low results in the English section of the ICFES Saber 11 exam, this study adopts a qualitative approach. According to Creswell (2018), this approach allows for a comprehensive exploration of perceptions, self-confidence levels, and feelings of preparedness among 11th-grade students following the implementation of a VLE intervention. The qualitative nature of the research aims to capture students' nuanced experiences and attitudes, providing insights into how a VLE could improve their preparation for the English exam.

Furthermore, this study seeks to implement a digital educational resource, known as a Virtual Learning Environment (VLE), as a complementary tool to help students become familiar with the structure and format of English test questions. At the same time, it would reinforce knowledge in specific content areas of the target language. This is expected to increase students' confidence and motivation while they prepare for the English exam.

Building on the importance of exploring students' perceptions, this study lies in meeting the participants' perceptions of the VLE experience. In this case, a qualitative approach based on constructivism is more appropriate (Merriam, 2009). This approach recognizes the subjective nature of the human experience and allows students to express their individual thoughts, feelings, and learning journeys.

Scope and Limitations of the Study

This study focuses on 11th-grade students of the Jorge Gaitán Durán Technical Institute in the rural area of Agua Clara, Cúcuta-Colombia, intending to explore the integration of a VLE as a preparation tool for the section of English from the ICFES Saber 11 Exam. Using qualitative methods such as questionnaires and interviews, the research explores students' perceptions, confidence levels, and preparedness regarding the VLE intervention. The findings of this study aim to argue for the VLE as a feasible model for test preparation and potentially influence changes to the institution's English curriculum.

However, the study faced asserted limitations. These include limitations such as limited time. The research was conducted within a predetermined timeframe, which restricted the ability to explore each of the resources offered by the VLE in depth. A longer study period would have allowed for more thorough interactivity; however, a structured application schedule was established to ensure each part of the resource were addressed. Additionally, it is worth noting that the study was conducted at only one school campus, which may limit the generalizability of the findings, as the school's context may not be representative of other educational environments. Nonetheless, the largest group of final-year students was selected as the sample to maximize the study's relevance.

One of the most complex limitations was technological access since not all students had consistent access to the VLE due to differences in mobile data capacities or service providers. This limitation affected overall student participation, but most of them still completed the interactive activities and assessments. In response to this challenge, collaborative work was encouraged, allowing up to two students to share a mobile device.

Moreover, the study specifically focused on developing interactive activities that would provide students with a dynamic and innovative learning experience, aiming to capture their perceptions based on their experiences. This focus limited the evaluation of broader aspects of English language learning or other academic subjects, which constrains the generalizability of the VLE's effectiveness to other areas of learning.

Literature Review

This chapter presents a comprehensive review of the relevant literature, synthesizing key findings, identifying areas of controversy, and situating the current study within the broader landscape of educational research. The literature review serves as a fundamental framework for this research effort, providing a systematic examination of empirical studies, theoretical frameworks, and pedagogical strategies relevant to English language education. Therefore, by examining foundational work in educational psychology and pedagogy, this review clarifies fundamental concepts that inform how concepts that inform how students´ self-efficacy and highly cognitive dynamics when integrating VLEs can enhance students' language learning and overall academic performance and engage with educational technologies.

From this fundamental exploration, the theoretical framework outlines the theoretical lens through which the current study will be conducted, providing clarity on the theoretical foundations that inform the research questions and objectives. The conceptual framework then describes Self-efficacy as a central element of Sociocognitive theory, which explores how an individual's beliefs and experiences about their own ability to successfully perform an activity can have a positive impact on the actual outcome of that activity.

This evidence-based approach informs strategies and interventions aimed at optimizing English language education at the Jorge Gaitán Durán Technical Institute, fostering an environment conducive to improving student learning outcomes in rural Colombia.

State of the Art

Integrating VLE and ICT in English Teaching

An investigation by Prasad (2022) reveals that the integration of Information and

Communication Technology (ICT) has significantly shifted the paradigms and methods of education, particularly in developed countries. In recent years, the use of ICT in education has also increased in developing countries. This study explored the opportunities and challenges of using ICT in English Language Teaching (ELT) in Tetu, Nepal, a developing country in Asia. The research involved English teachers and students from two universities, using interviews and focus group discussions as the primary research methods.

The study concluded that ICT integration was beneficial for participants, enhancing their teaching and learning activities by providing access to learning resources, aiding in lesson preparation and presentation, and promoting continuous learning. However, the study also found that participants were not entirely satisfied with the availability of ICT tools and their ability to effectively use them for teaching and learning English. The primary challenges identified were access to ICT tools and the necessary skills to effectively utilize them in ELT. Therefore, there is a need to address these limitations to improve the integration of ICT in teaching English as a second language in Nepal.

A study carried out by Başar and Şahin (2022) in Turkey looked into the content analysis of technological integration in the teaching of English as a foreign language. The objective of the research was to evaluate the impact of technology integration in English language education, emphasizing the need to adapt traditional teaching methods to serve digital natives. The findings underlined the importance of technology integration in creating interactive, learner-centered learning environments, thereby increasing student motivation and facilitating language acquisition. The study highlighted the importance of using various technological tools, such as online platforms, electronic dictionaries, and computer-assisted language learning programs, to improve the effectiveness of English language teaching.

Incorporating a VLE into English language teaching research can yield significant results. By leveraging technology such as online platforms and computer-assisted learning tools, Basar and Sahin's study can demonstrate greater effectiveness in teaching English through interactive and personalized learning experiences. Implementing a VLE can also improve student engagement, motivation, and access to various educational resources. Studying the impact of a VLE on language learning outcomes can provide valuable information to optimize language education practices and inform future strategies for integrating technology into teaching methodologies.

On the other hand, Ramírez and Fernandez (2020) explored the concept of pedagogical mediation in education, tracing its evolution and integration with ICT in VLE. Their study highlights the synergy between pedagogical mediation and ICT, called techno-pedagogical mediation, emphasizing its importance in promoting successful teaching-learning processes. International institutions, particularly in Spain, have successfully implemented virtual tutoring through VLE, underscoring the importance of interactive teaching, professionalism, and effective communication. In Mexico, technological universities have introduced a Virtual Tutoring Platform (PTV) to support student needs and improve teaching efficiency.

The study aimed to explore the effectiveness of VLE in teaching English and the integration of ICT in education, aligning with the research objective of Ramírez and Fernández (2020), the authors established strategies through organized focus groups to strengthen the efficiency of the virtual tutoring platform, highlighting ongoing efforts to improve pedagogical practices through the integration of ICT. Research described in this section, such as that of Ramirez and Fernandez, suggests that ICT-enhanced teaching methods contribute to effective learning outcomes. This research can provide valuable insights into the impact of VLEs on

student engagement, learning outcomes, and the integration of ICT tools in education, thereby informing best practices for optimizing language teaching through techno-pedagogical mediation.

Another important study supporting this category in the literature is the research conducted by Ching and Roberts (2020). The study explored the concept of technology-enhanced learning (TEL) and instructional technology, emphasizing the role of digital tools in enhancing the teaching and learning experience. The emphasis on the role of digital tools in enhancing the teaching and learning experience supports the proposed research focus on utilizing technology to optimize learning outcomes. This highlights the importance of integrating innovative technological solutions into educational practices to create more engaging and effective learning environments. By emphasizing the benefits of digital tools, the research highlights the potential for technology to positively impact teaching methodology and students' learning experiences, aligning with the research objectives of leveraging technology to improve educational outcomes.

Additionally, Bonilla and Cifuentes (2020) conducted an action research study in Cúcuta-Colombia, focusing on the use of digital platforms as an academic tool to promote reading comprehension in English as a foreign language. The research aimed to improve students' English language skills in preparation for standardized tests, this local study is closely related to research that studies not only methodology and approaches interns, but also the alignment to apply VLE resources for the standardized English test. This study focused on the use of digital platforms as an academic tool to improve reading comprehension in English among foreign language learners. It is closely aligned with the proposed research, both in methodological terms and in the approach of using VLE resources to prepare students for standardized English language tests.

Overall, previous research related to VLE and ICT in English language education offers a promising avenue to improve language learning outcomes and prepare students for standardized tests such as in this case the ICFES Saber 11 English test. Furthermore, the strategic integration of VLE and ICT is often guided by national policies and standards that emphasize the importance of digital resources to improve student engagement and learning outcomes. This alignment with educational objectives and assessment requirements ensures that the implementation of technology-enhanced approaches, such as VLE, directly supports student preparation and performance on high-stakes English language tests. By leveraging VLE and ICT capabilities, educators can better prepare students to excel on these standardized exams, ultimately improving their academic prospects.

Preparation for Standardized English Tests

In line with the usability of VLEs, it is crucial to understand that today VLEs are widely used to design teaching-learning training courses and to take into account that the ability to master a foreign language or a second language provides some benefits for people, both prior and the components enhance language acquisition and preparation for standardized English texts. In that sense, Rifiyanti, et al. (2020), briefly express that mastering all skills in English allows competitive communication in all living scenarios, providing advantages in both personal and professional life, their focus was to explore the impact of attending TOEFL preparation courses on test scores the students. These studies highlight that mastering English allows competitive communication in various scenarios, offering advantages in the personal and professional sphere. They also underline the growing importance of improving English proficiency in response to increased international social interaction, prompting universities to develop resources and

methods that foster effective communication skills aligned with the Common European Framework of Reference (CEFR).

The research consulted is closely aligned with the objective of this research to apply a VLE as a preparation tool for the ICFES Saber 11 English exam. Drawing parallels with findings from Indonesia, this research aims to explore how the use of a VLE can optimize English language test preparation strategies, ultimately aiming to improve student performance and success in the ICFES Saber 11 English exam.

The TOEFL preparation course focuses on improving general English language skills through reading, listening, speaking, and writing, offering information to improve TOEFL preparation programs and student outcomes on the TOEFL test, describes the purpose and structure of the TOEFL, an international standardized test that assesses English proficiency for academic purposes, emphasizing its importance for university admissions where English is the medium of instruction. certification for professional and educational opportunities abroad.

In addition, the research “University entrance tests: a comparison between autonomous communities” was carried out in Madrid, Spain, by Gaviria, and Ruiz (2021). The study aims to analyze to what extent the autonomy granted to the autonomous communities influences the standardization and homogeneity of the tests to access universities throughout Spain. Using legislative frameworks to design university entrance exams to assess language choices among students is a challenge for teachers who adapt strategies that motivate learning, as is the particular case of the predominance of English as the preferred foreign language, which has been established at 97% of those examined in the last five years.

The study identifies significant disparities in the structure and content of university entrance exams among Spain's 17 autonomous communities, raising questions about the exams'

ability to uniformly assess skills. Despite efforts to standardize assessments, variations in components and question types persist. The prevalence of English as a preferred foreign language highlights the need to assess English proficiency.

This comparative analysis sheds light on the challenges of standardizing assessment methods across different regions, which is consistent with the need for consistent and uniform assessment practices in standardized English tests. These findings highlight the challenges associated with standardizing assessment methods across different regions, emphasizing the need for consistent and uniform assessment practices in standardized English tests such as the ICFES Saber 11. This research highlights the importance of addressing discrepancies in the assessment protocols to ensure equity and reliability in assessing students' language proficiency and academic preparation.

This research highlights the promise of innovative learning methodologies to improve students' preparation for standardized assessments and supports the incorporation of digital tools, including VLEs, into educational practices to enrich students' learning experiences. students. These studies collectively underscore the importance of effective preparation courses in innovative learning strategies and improving students' preparation for standardized English tests. This means that there is a high feasibility of collecting feedback from 11th-grade students by applying a VLE as a preparation tool for the English exam in the ICFES Saber 11. The studies together also provide valuable information on the effectiveness of VLE and innovative learning strategies to improve language skills and exam performance, supporting the rationale behind collecting student feedback to evaluate the impact of VLE implementation on exam preparation in English. The VLE emerges as a powerful tool that can bridge the gap between language learning and test performance, empowering students to develop the skills and mindset needed to

excel on these high-stakes assessments while also encouraging your general command of English.

Students' Perceptions of a VLE for their Preparation in the English Test

Chakraborty's (2023) fundamental study delves into the challenge of overcoming test anxiety, particularly the stress experienced by students before exams. The author emphasizes that students' perceptions and reactions when faced with stress-inducing situations, such as answering questionnaires or assessments that determine their grades, can vary significantly depending on the context. The study suggests that techniques like writing essays on paper and engaging in relaxation methods can help manage anxiety by removing negative energy and fostering a positive mindset. This is relevant to the current study on students' perceptions of a VLE for preparing for English tests, as it helps establish the importance of addressing anxiety and stress within the school environment to improve learning outcomes.

In particular, the cognitive component, worry, emerged as an important factor that negatively affects performance when accompanied by higher levels of worry. The study's meticulous examination of the cognitive dimension revealed that preoccupation with exam-related thoughts interfered with attention mechanisms, thereby depleting cognitive resources essential for optimal performance.

Linking this seminal study to the ongoing research effort provides invaluable insights into the intricate interplay between students' perceptions of the importance of testing and resulting performance outcomes. Specifically, findings related to the cognitive component of anxiety resonate with the observation from ongoing research that students' intrinsic motivation to excel in English may be undermined by the perception of its irrelevance to their future endeavors. Consequently, this alignment underscores the imperative of addressing motivational disparities to

cultivate an environment conducive to improving performance on English assessments such as the ICFES exam.

Genç and Şanlı (2023) conducted a causal design study that examines the moderating role of parental test anxiety on the relationship between eighth-grade students' anxiety and performance on high school entrance examinations The participants of the study were a total of 353 eighth-grade students attending seven different secondary schools in the northern region of Turkey. The data collection instruments used were a Personal Information Form and a Parent and Child Anxiety Testing Scale. Pearson product-moment correlation coefficients were computed for descriptive data analysis. The Bootstrap method was used to estimate sampling distributions. The study used 5,000 bootstraps and confidence intervals were set at 95%. The analysis showed that parental test anxiety plays a moderating role in the relationship between children's test anxiety and high school entrance examination scores.

Through empirical research, the narrative reveals deep insights into the multifaceted nature of test anxiety and its far-reaching implications for student preparation and performance. Particularly poignant is the identification of procrastination as a detrimental byproduct of test anxiety, which resonates with ongoing research efforts to elucidate the motivational obstacles that impede students' effective engagement with education and testing the English language. Furthermore, recognition of deficits in executive functions underscores the imperative of cultivating holistic strategies that not only address linguistic proficiency but also foster the cognitive skills essential to skillfully navigate exam-related challenges.

An interesting research that emphasizes study techniques and anxiety during internal exams in pre-university students was developed by Vasquez, et al. (2022), aimed to determine the relationship between study techniques and anxiety during internal exams in students. Non-

experimental research was applied, with a quantitative approach and descriptive correlational design; a sample of 65 students was selected; likewise, two questionnaire-type instruments were administered, one to measure the techniques and the other the exam anxiety scale (IDASE). The results of the research were directed to the importance and the relationship that exists between study techniques and the dimension of concern of pre-university students.

Aligning with the study's emphasis on the efficacy of integrating effective study techniques, the ongoing research underscores the imperative of adopting a holistic approach to English language education that encompasses not only linguistic proficiency, but also strategic learning methodologies designed to alleviate exam-related stressors. Additionally, the insights of these authors underscore the transformative potential of technology-embedded learning modalities to foster adaptive study techniques that resonate with the learning preferences of contemporary students, thereby fostering an environment conducive to improved performance on English assessments such as the ICFES exam.

The ongoing research effort can forge a robust framework for cultivating a holistic approach to English language education that transcends mere linguistic proficiency to encompass cognitive, emotional, and motivational dimensions essential to fostering test preparation and optimizing performance outcomes. Through targeted interventions based on this knowledge, educators can empower students to meet the challenges of standardized testing with confidence, equipping them with the skills and strategies necessary to excel in both their academic and professional pursuits.

On the other hand, Pérez (2017) provides more knowledge about the relationship between study techniques, test anxiety, and academic performance. The study emphasizes how adopting effective study methodologies can mitigate anxiety and improve students' preparation for exams;

Therefore, by equipping students with adaptive study skills, educators can positively influence their perceived levels of preparation and confidence, thereby optimizing their performance on assessments such as the ICFES test.

These studies collectively emphasize the complex relationship between students' perceptions of preparedness, their emotional well-being, and their academic performance; They underscore the importance of addressing motivational factors and implementing effective study strategies to create an educational environment that encourages optimal exam performance. By integrating this knowledge into educational practices, educators can empower students to overcome anxiety, cultivate a sense of preparedness, and achieve better results through personalized interventions and holistic approaches to test preparation.

Additionally, these studies contribute to a deeper understanding of students' preparation for standardized English tests. They demonstrate the influence of self-determination theory on students' perceptions of a VLE in preparing for English exams. Specifically, the VLE can support students' needs for autonomy, competence, and relatedness, thereby improving their motivation and engagement in language learning and exam preparation. This perspective suggests that effective integration of VLEs into educational settings not only addresses immediate academic needs but also nurtures students' broader psychological and motivational factors crucial for successful learning outcomes.

Theoretical Framework

The theoretical framework adopted in this study is important in guiding research and practice to improve English language education and improve student performance on standardized tests such as the ICFES Saber 11° test. By integrating key educational theories, this framework offers a comprehensive approach to understanding critical aspects of learning,

including social interaction, technology integration, motivation, active learning, and autonomy. It provides a lens through which interventions can be developed to optimize language education practices and take advantage of technology-enhanced learning environments. This theoretical foundation underscores the interconnectedness of educational theories to address the complex challenges of language education and assessment, ultimately aiming to improve student preparation and success on standardized English tests.

Language Learning and Development: Theories of Language Learning

Vygotsky's Sociocultural Learning Theory. Vygotsky's sociocultural learning theory (1978), formulated by Soviet psychologist Lev Vygotsky in the early 20th century, emphasizes the fundamental role of social interaction and cultural context in cognitive development and learning. According to Vygotsky in Hall (2007), learning is inherently social and occurs through collaboration and interaction with others, particularly more knowledgeable peers or adults. He introduced the concept of the Zone of Proximal Development (ZPD), which refers to the gap between what a student can achieve independently and what he can achieve with the guidance and support of a more knowledgeable person. Vygotsky argued that learning within this zone is most effective as it promotes cognitive growth.

According to Allman (2023), Sociocultural learning theory, as formulated by Lev Vygotsky, postulates that learning is deeply determined by social and cultural factors. Vygotsky emphasizes the importance of social interactions and language in cognitive development, along with the concept of the Zone of Proximal Development (ZPD). According to Vygotsky, the ZPD represents the gap between what students can achieve independently and what they can achieve with the guidance of more knowledgeable people, such as teachers or peers (Kahlke, Bates, & Nimmon, 2019). This theory suggests that learning is most effective when individuals participate

in culturally meaningful activities that leverage their experiences to acquire new knowledge and skills. Furthermore, Vygotsky highlights the role of language in shaping cognitive processes and constructing theoretical understandings through social interactions.

By contextualizing learning within the student's social, cultural, and historical background, sociocultural theory provides a solid framework for developing educational practices that focus on the needs of the student, advocating instructional approaches that foster critical thinking, problem-solving skills, and lifelong learning. Vygotsky's theory posits that by integrating cultural contexts into educational settings, educators can create environments where students actively participate in learning experiences that are relevant and meaningful to their lives. (McLeod, 2024). This approach not only improves academic outcomes but also fosters an understanding deeper understanding of how cultural and social dynamics influence cognitive development and educational achievement.

In Vygotsky's framework, language plays a fundamental role as a tool for thinking and mediating social interactions. The concept of the ZPD proposed by Vygotsky implies that students can achieve higher levels of language proficiency through interactions with peers who possess superior language skills or under the guidance of instructors. Therefore, the present research explores how the design and facilitation of the VLE could foster collaborative learning experiences leveraging the ZPD, allowing students to develop their language learning and support each other in academic advancement. Additionally, considering the cultural dimensions of language learning within Vygotsky's framework can inform strategies for creating culturally responsive learning environments that respect students' diverse backgrounds and foster equitable educational outcomes (Hall, 2007). Constructivism and social constructivism

Incorporating constructivist and social constructivist perspectives into research aimed at improving English language education and student performance on exams such as the ICFES Saber 11° test provides a comprehensive framework for understanding learning processes. Constructivism, described by Amineh and Asl (2015), states that students actively construct knowledge through experiences, interactions, and reflection. This approach in language education promotes practical application, critical thinking, and exploration-driven tasks, improving understanding of language concepts; By engaging students in authentic language tasks and collaborative projects, educators foster better critical thinking skills and a deeper understanding of language structures and functions.

Social constructivism builds on these principles by emphasizing the role of social interactions in the construction of knowledge. It posits that learning is a collaborative process in which students interact with peers and instructors to negotiate understanding. In language education, this perspective highlights the value of communicative activities that facilitate dialogue and shared exploration of the complexities of language; Therefore, the integration of social constructivist approaches supports effective language learning and creates environments conducive to peer interaction, cultural exchange, and practical application of language skills. in various contexts. Together, constructivism and social constructivism offer a solid foundation for holistic language development, preparing students for academic success and real-world communication mastery.

According to Bryce and Blown, (2024) Piaget has a major impact on language education by highlighting the importance of students actively creating knowledge. , likewise, (Piaget, 1952). Piaget suggested that as students' progress through different stages of cognitive development, teaching strategies should match their level of development. Piaget's beliefs in

language education support interactive, discovery-focused learning activities that encourage students to independently explore language concepts and structures. This method encourages active participation and helps in language growth by adjusting to the cognitive abilities and development phases of each person.

Language acquisition is considered a collaborative effort influenced by cultural and social contexts. Group activities, peer discussions, and cooperative learning environments play a critical role in building knowledge within this framework. Students benefit from interacting with peers and individuals with greater linguistic proficiency, improving their communication skills, and gaining knowledge about diverse cultures (Amineh & Asl, 2015). Sociocultural theory, underpinning social constructivism, emphasizes creating inclusive and supportive learning environments that recognize students' diverse backgrounds and experiences. By adopting these theoretical perspectives, research can explore how collaborative and culturally responsive approaches to English language education impact student performance on standardized tests such as the ICFES Saber 11° exam.

Communicative Language Teaching (CLT). CLT (Communicative Language Teaching) places a strong emphasis on developing students' communicative competence as its main objective. This pedagogical approach prioritizes authentic language use in real-life contexts and meaningful interactions over traditional grammar exercises. In CLT classrooms, students participate in interactive tasks, role-plays, and communication activities that reflect genuine linguistic exchanges (Faizatuz, 2022). By focusing on practical language skills essential for everyday situations, CLT improves language proficiency and builds confidence in using the target language in various settings (Ode & Thi, 2023).

Additionally, CLT follows a learner-centered methodology, encouraging active student participation in the learning process and fostering responsibility for language acquisition. The integration of a VLE complements this approach by offering students the flexibility to learn at their own pace, access personalized resources, and engage in self-directed practice (Le, 2021). This synergy between CLT and VLE creates a dynamic learning environment that meets the diverse needs and preferences of 11th-grade students and ultimately improves their preparation for the ICFES Saber 11 English assessment.

Task-based Instruction. Another student-centered approach promotes active participation in linguistic tasks that require meaningful use of language. This approach aligns with the interactive and learner-centered nature of VLEs, allowing learners to take charge of their learning journey and independently prepare for classes at home. By incorporating tasks that focus on these skills, students can systematically improve their language proficiency in a purposeful way, thereby improving their exam performance.

The integration of a VLE as a training tool for the English language section of the ICFES state exam at the Jorge Gaitán Durán Technical Institute is based on fundamental educational theories to improve students' preparation and their perception of readiness. Vygotsky's sociocultural learning theory highlights the importance of social interaction and cultural context in cognitive development. This theory posits that learning is most effective when students collaborate with peers or receive guidance from more knowledgeable people within their Zone of Proximal Development (ZPD). Leveraging this framework, the VLE can facilitate collaborative learning experiences tailored to students' linguistic needs, thereby fostering a supportive environment that respects cultural diversity while preparing them for the rigor of the ICFES Saber 11 English exam.

Constructivism and social constructivism further enrich the effectiveness of VLE by emphasizing active participation and meaningful learning experiences. Constructivist principles emphasize that students actively construct knowledge through interaction, reflection, and practical application. In the context of language education, this translates into task-based activities and authentic linguistic tasks within the VLE that deepen the comprehension and critical thinking skills essential for effective communication. On the other hand, social constructivism extends this by emphasizing the role of social interactions in learning, advocating for collaborative learning environments that reflect real-world language use scenarios. Therefore, by integrating these perspectives into the VLE, educators can improve students' language proficiency and their preparation for the complexities of the ICFES Saber 11 English exam.

Additionally, the principles of CLT and task-based instruction are fundamental components of the VLE strategy. First, CLT prioritizes authentic language use and meaningful interactions, closely aligning with the goal of preparing students to communicate effectively in English. In contrast, task-based instruction further supports this approach by focusing on specific language skills required for the exam, such as reading comprehension, writing, listening, and speaking. By incorporating CLT and task-based instruction into the VLE framework, educators empower students to develop not only the technical competencies needed to succeed on exams but also the practical skills needed to master the language in the real world. This holistic approach ensures that students at Instituto Técnico Jorge Gaitán Durán are well-equipped to handle both academic assessments and everyday English communication challenges.

VLE Integrated Learning Theory for Language Education

In the current educational landscape, the integration of VLEs has emerged as a transformative approach to improve language education and prepare students for standardized

exams. By leveraging theories such as Technology-Mediated Learning Theory (TMLT) and Cognitive Multimedia Learning Theory (CTML), this research aims to understand how these technological innovations influence student readiness and perceived readiness for standardized assessments.

Technology-Mediated Learning Theory (TMLT). Technology-mediated learning theory (TMLT), proposed by Bower (1995), offers valuable insights into how VLEs can augment educational practices through the integration of technology. Bower's theory underscores the transformative potential of technology in education, emphasizing learner control, active participation, and access to resources as critical elements in facilitating effective learning experiences (Bower, 2019).

Focusing on improving English language education and student performance on standardized tests like the ICFES Saber 11th test, TMLT has significant relevance. The theory's emphasis on learner control aligns with the exploration of how VLEs facilitate collaboration and knowledge sharing among learners. By providing students with greater autonomy over their learning process within a digital environment, VLEs can empower them to take ownership of their education, which could lead to greater engagement and motivation (Bower, 2019).

Additionally, TMLT highlights the importance of active participation in technology-mediated learning environments, which is consistent with the focus on improving students' preparation for English exams. Through interactive multimedia elements and collaborative tools integrated into VLEs, students can actively engage with course content, develop their understanding of English language concepts, and develop essential skills for exam success (Barbosa et al., 2021).

Additionally, Bower's theory highlights the importance of access to resources in technology-mediated learning, which directly informs the present research on innovative teaching approaches, including technology-integrated learning. By taking advantage of the various multimedia resources available in VLEs, educators can offer students diverse learning opportunities that suit their individual needs and preferences, ultimately improving their preparation for standardized English tests such as the ICFES Saber 11 exam.

TMLT offers a comprehensive framework for understanding the role of VLEs in education and provides valuable information that can inform these research efforts. By integrating principles of learner control, active participation, and access to resources into English language education practices, this research can develop specific interventions aimed at improving student performance on standardized English tests and fostering a more engaging learning environment. and effective.

Technology Acceptance Model (TAM). The technology acceptance model (TAM) is an information systems theory that explains how users come to accept and use a technology. It suggests that two key factors determine whether a user will accept a technology: perceived usefulness and perceived ease of use. Perceived usefulness refers to the degree to which a person believes that using the technology will improve their performance, while perceived ease of use is the degree to which a person believes that the technology will be effortless. (Marikyan & Papagiannidis, 2023).

The Technology Acceptance Model (TAM) developed by Davis explains the factors that influence the acceptance and adoption of technology, including VLEs, for language learning. TAM suggests that perceived usefulness and perceived ease of use are key determinants of individuals' intention to use technology (Davis, 1989). In the context of this research on the

integration of a VLE to improve students' perceptions of their preparation for the ICFES Saber 11 English exam, TAM can help assess students' attitudes and intentions towards the use of the VLE, informing design and implementation strategies to improve user acceptance. and commitment.

Meanwhile, this research adopts a blended learning approach that combines traditional classroom instruction with VLE integration, to create a dynamic and engaging learning environment conducive to English language development. This blended model enables personalized and flexible learning experiences, allowing students to access resources, practice and receive support both in the classroom and through the VLE, allowing them to access learning materials and participate in activities from anywhere and at any time.

Cognitive Theory of Multimedia Learning (CTML). The Cognitive Theory of Multimedia Learning, proposed by Mayer and Moreno (2019), emphasizes the importance of presenting information using text and graphics to facilitate deeper learning compared to using text alone. This theory is based on the idea that there are two learning channels (auditory and visual) that work together to process information and convert it into working memory. It is based on seven principles, including the multimedia principle, the contiguity principle, the modality principle, the redundancy principle, the consistency principle, the personalization principle, and the segmentation and pre-training principle. The theory aims to reduce cognitive load by optimizing the processing capabilities of working memory, ensuring that the instructional design minimizes unnecessary cognitive load to improve meaningful learning experiences (Betancourt and Garcia 2023).

Mayer's Cognitive Theory of Multimedia Learning (CTML) emphasizes how individuals learn in multimedia environments, such as VLEs. CTML states that the integration of visual and

auditory information in VLEs can enhance language learning by engaging multiple sensory channels and facilitating the construction of mental representations (Castro et al., 2021). This theory provides a framework for designing multimedia-based language learning activities within VLEs, ensuring that the presentation of content aligns with how learners effectively process and retain information.

These theories are fundamental to the current research as they provide fundamental principles that guide the methodology of the study. Technology-Mediated Learning Theory. (TMLT), articulated by Bower (1995), emphasizes learner autonomy, active participation, and access to resources within digital environments; These elements are integral components for the development of codes and categories in data analysis, essential for building instruments that collect meaningful data aligned with the objectives of the research (Patiño et al., 2024).

For example, TMLT suggests that VLEs allow students to deepen their understanding of language concepts and improve test preparation through collaborative learning. By integrating interactive multimedia and collaborative tools within VLEs, the theory promotes the active participation and critical thinking skills necessary for effective exam preparation (Gupta and Bostrom, 2009). This approach underscores the usefulness of TMLT in informing the design of research instruments designed to capture essential knowledge and outcomes related to students' learning experiences in digital educational environments.

Furthermore, the Cognitive Theory of Multimedia Learning (CTML), formulated by Mayer (2001), highlights the importance of integrating visual and auditory information in VLEs to optimize learning outcomes. CTML suggests that by aligning instructional design with its principles, educators can improve students' understanding and retention of English language skills required for standardized tests. This approach leverages the engagement of multiple

sensory channels and reduces cognitive load, thereby facilitating more effective learning experiences within technology-enhanced environments.

Motivational Constructs and Self-efficacy in Language Learning

Language learning is a complex task influenced by a multitude of psychological factors that shape learners' motivation and effectiveness in achieving mastery. Fundamental to understanding these dynamics are Bandura's Socio-cognitive Theory and Deci and Ryan's self-determination theory (SDT), which provide fundamental insights into how individuals learn and maintain motivation within educational contexts.

Self-efficacy from Bandura's Socio-cognitive Theory. Bandura's Socio-cognitive Theory, also known as Social Learning Theory, argues that learning occurs through observation, imitation, and social interaction. A central element of Socio-cognitive Theory is the notion of self-efficacy, which refers to an individual's belief in their ability to succeed in specific situations or perform tasks (Ryan & Vansteenkiste, 2023). Self-efficacy beliefs influence motivation, behavior, and the level of effort expended to achieve goals. Bandura's theory has been applied in various settings, including education, psychology, and health, to understand and facilitate learning, behavior change, and personal development.

Bandura's Socio-cognitive Theory offers valuable information for understanding students' preparation and performance on standardized tests, such as the ICFES Saber 11° test, as it emphasizes the role of self-efficacy beliefs in shaping behavior and performance. To improve English language education and student achievement, Bandura's theory suggests that students' confidence in their ability to excel in English, as measured by their self-efficacy beliefs, plays a crucial role. Higher levels of self-efficacy regarding English language skills are likely to lead to greater motivation, effort, and perseverance in preparing for and performing on English exams.

By considering Bandura's Socio-cognitive Theory, research can explore interventions aimed at improving students' self-efficacy in learning the English language, thereby positively impacting their performance on standardized tests such as the ICFES exam.

Self-determination Theory (Motivation). Motivation in the English learning process or Self-Determination Theory (SDT) proposed by Deci and Ryan (2000) suggests that individuals are inherently motivated to engage in activities that satisfy their basic psychological needs for autonomy, competence, and relatedness. In the context of learning English, SDT posits that students are more likely to feel motivated when they feel a sense of autonomy in their learning process, perceive themselves as competent in acquiring language skills, and experience a sense of connection or relationship with others in learning. learning environment.

At the heart of Bandura's Social-cognitive theory is the concept of self-efficacy, which is the belief in one's ability to perform tasks and achieve specific goals. This idea aligns closely with Self-Determination Theory (SDT), which emphasizes that individuals are inherently motivated to engage in activities that satisfy their basic psychological needs for autonomy, competence, and relatedness. In the context of this study, the integration of a VLE as a training tool enhances the preparation process for the English section of the ICFES State Exam by fostering these psychological needs. By providing students with greater control over their learning process (autonomy), helping them develop the skills needed to master English tasks (competence), and facilitating collaboration and support among peers (relatedness), the VLE boosts both intrinsic motivation and self-efficacy.

Consequently, the data collection instruments for this study, such as focus groups and questionnaires, evaluate not only the technological resources provided by the VLE but also students' active participation, their intrinsic and extrinsic motivation, and their confidence in their

ability to succeed in the English language tasks. This synthesis underscores how the VLE's design aligns with both SDT and self-efficacy, making it an effective tool for improving exam preparation. Similarly, Deci and Ryan's (2000) Self-Determination Theory (SDT) emphasizes intrinsic motivation driven by the satisfaction of innate psychological needs for autonomy, competence, and relatedness. In the context of language learning, SDT posits that learners are more motivated when they perceive autonomy in their learning process, feel competent in acquiring language skills, and experience a sense of connection with others in their learning environment. This theory highlights the importance of fostering an environment that supports intrinsic motivation, promoting commitment and sustained effort in language acquisition.

Standardized Exams

Standardized tests are assessments designed to measure a student's knowledge and skills against a predetermined set of criteria, with the goal of providing a consistent and fair assessment across a large population of test takers. These exams typically consist of a uniform set of questions administered under controlled conditions and scored according to predetermined criteria. They are widely used in educational settings to assess student mastery, evaluate educational programs, and inform decision-making at various levels (Olsen et al., 2021).

According to Garrison (2001), the adoption of standardized testing was driven by the agenda of creating a meritocratic society where opportunities were based on ability rather than socioeconomic background. The need for standards arises from the necessity to conduct evaluations and make informed judgments; therefore, it is essential to establish a standard. Historically, assessments in education were intended to evaluate the progress of students and the effectiveness of the institutions they attended in achieving their educational goals. This need for evaluation was often legislated by authorities, indicating official endorsement of the process.

Standardization often brings with it connotations of conformity, loss of individuality, and centralized control. However, it is also the application of a uniform standard that allows for the differentiation of individuals and groups within formal education. By applying the same standards to all students, we can evaluate their ranking relative to those standards and among their peers. Therefore, standardized tests allow us to identify which students meet or exceed expectations, facilitating a relative ranking system. Despite this, opposition to standardization often arises from resistance to the idea of leveling, where everyone is measured against the same criteria, potentially ignoring individual differences and unique talents.

The debate over “teaching to the test” further highlights the tension between using standards as a model or objective and as a tool for evaluation and comparison. Teaching to the test is often seen as aligning with the essence of having a standard, and providing a model for example to follow. Some critics argue that this approach could limit broader educational goals and philosophies, reducing teaching to mere test preparation. However, advocates suggest that without a standard or goal, judging success is difficult. Therefore, the discussion around standardized testing and teaching to the test reflects broader considerations about the role of standards in education and the balance between maintaining a clear goal and fostering comprehensive, individualized learning experiences (Garrison, 2001).

Students generally have mixed perceptions about standardized tests. While many agree that standardized tests provide a way to compare student performance and track progress, most feel that these tests fail to accurately assess students' true abilities and understanding. Most students report having been evaluated using standardized tests throughout their education, from elementary school to university (Rodríguez, 2014).

In the context of this research on how to improve English language education and student performance on standardized tests, focusing particularly on the ICFES Saber 11th test, The design of a Virtual Learning Environment (VLE) can enhance student preparation for standardized tests by incorporating principles from the Technology-Mediated Learning Theory (TMLT), the Technology Acceptance Model (TAM), and the Cognitive Theory of Multimedia Learning (CTML). According to TMLT, effective VLEs should provide learner control, active participation, and access to resources, fostering deeper engagement and motivation. TAM emphasizes that perceived usefulness and ease of use are crucial for technology acceptance; therefore, students are more likely to adopt a VLE if they find it easy to use and believe it will improve their performance. Meanwhile, CTML highlights the importance of combining text and graphics to facilitate deeper learning by engaging multiple sensory channels and reducing cognitive load. By integrating these elements, a well-designed VLE not only strengthens students' knowledge and skills required for exams but also enhances their confidence and self-efficacy, leading to a better perception of their readiness for the ICFES exam.

Conceptual Framework

This study is grounded in the intersection of technology-mediated learning and language education, particularly through the integration of Virtual Learning Environments (VLEs) as a training tool for preparing 11th-grade students at Jorge Gaitán Durán Technical Institute for the English section of the ICFES State Exam. The research draws on key theoretical underpinnings, including the Technology-Mediated Learning Theory (TMLT), the Technology Acceptance Model (TAM), and the Cognitive Theory of Multimedia Learning (CTML), to inform the design of a VLE that promotes learner control, active participation, and effective resource utilization. This conceptual framework provides a roadmap to understanding how students engage with

VLEs and how these interactions and their beliefs in their own abilities influence their motivation and academic performance while shaping their preparation for standardized testing.

Design of VLE to Prepare Students for the ICFES Saber 11th Standardized Exam

A virtual learning environment (VLE) is an online platform designed to help educational institutions and students share knowledge more easily (Bates, 2015). These platforms offer tools and resources that encourage interactive and independent learning through collaboration (Garrison & Vaughan, 2008). AVA frequently includes discussion forums, study resources, interactive assignments, and online assessments, which enhance the educational experience in dynamic and accessible environments (Salmon, 2013). Through technology, VLE offers personalized learning experiences to meet the unique needs and preferences of each student (Picciano, 2017).

The Technology Acceptance Model (TAM) and Cognitive Theory of Multimedia Learning (CTML) are critical to understanding the VLE's design for the ICFES English exam. TAM highlights perceived usefulness and ease of use as essential factors influencing students' acceptance and effective use of technology. By incorporating intuitive and accessible interfaces, the VLE is expected to facilitate the exam preparation process by encouraging higher engagement and deeper cognitive processing. CTML adds another layer by emphasizing the importance of using multimedia (text, graphics) to enhance learning outcomes. This theory underscores the design of the VLE, which incorporates multimedia to better equip students with essential language skills through an interactive and visually engaging learning environment.

ICFES Saber 11th Standardized Exam. The ICFES Saber 11 exam is a standardized assessment in Colombia that measures students' competencies in various subjects, including English, crucial for their entry into university and their future educational planning. It is directly

aligned with addressing the challenges identified in the English section of this exam, particularly as it relates to Jorge Gaitán Durán Technical Institute students who historically exhibit lower performance in English compared to other subjects. By integrating a virtual learning environment (VLE) to improve the preparation and perceptions of grade 11 students on the ICFES Saber 11 English test, the study aims to strengthen their performance and preparation considering the parts that constitute the exam.

Graphic and Sign Interpretation (Part 1). This segment focuses on the interpretation and understanding of signs, symbols, and visual information found in everyday contexts. This section assesses students' abilities to decipher meanings conveyed through graphs, charts, and diagrams, which are essential for effective communication and understanding in various settings.

Word Description (Part 2). In this section, students hone their ability to describe objects, scenes, or concepts using appropriate vocabulary and descriptive language. Emphasis is placed on expanding vocabulary and articulating detailed descriptions, crucial for communication and expression.

Incomplete Dialogues (Part 3). In part 3, students complete and understand dialogues or conversations, demonstrating their understanding of contextual cues and language use. This exercise improves comprehension and communication skills.

In Incomplete Texts (Part 4). Here, students interact with incomplete passages, filling in blanks using contextual clues and linguistic knowledge. This strengthens reading comprehension and familiarity with text formats.

Reading Comprehension (Parts 5, 6, and 7). Section 5 focuses on understanding and analyzing written passages, identifying main ideas, inferring meaning, and drawing conclusions. Part 6 further refines understanding with complex texts and nuanced questions. Part 7 involves

working with incomplete texts, analyzing and completing the content effectively aligning with the requirements of the ICFES English exam.

Additionally, the VLE is deeply aligned with the theoretical foundations of Communicative Language Teaching (CLT), which emphasizes authentic language use in real-life contexts and meaningful interactions to foster communicative competence among students. The symbiotic relationship between CLT principles and VLEs presents students with greater flexibility, personalized resources, and opportunities for self-directed practice, thereby improving their overall preparation for standardized assessments such as the ICFES Saber 11 English exam. Additionally, the adoption of Task-based instruction, another student-centered pedagogical approach, allows students to engage purposefully in language tasks aimed at honing specific skills assessed on the exam, including reading comprehension, writing proficiency, listening comprehension, and oral communication.

Feeling Prepared: Self-efficacy and Motivation, Driven by Autonomy, Competence, and Relatedness

Bandura (2001) has established through his postulates that self-efficacy can be defined as the perception or personal belief of one's own capabilities in a given situation. Self-efficacy beliefs have a great influence on human beings, since they act on their thoughts, feelings, and behaviors (Bandura, 1995). One aspect that highlights the importance of self-efficacy is its predictive value of human behavior. People's behavior, according to Bandura, can be better predicted by the beliefs that individuals have about their own capabilities than by what they can actually do since these perceptions contribute to delineating what people do with the skills and knowledge they possess.

For the second and third specific objectives, which focus on students' perceptions of their preparedness and the effectiveness of the VLE, Bandura's Self-Efficacy Theory is integral. This theory asserts that individuals' beliefs in their capabilities influence their actions and motivation. In the context of this study, self-efficacy beliefs play a critical role in how students perceive their ability to succeed in the ICFES exam after utilizing the VLE. Understanding how the VLE impacts students' confidence and perceived preparedness can provide insights into the effectiveness of this technological intervention.

Moreover, the Self-Determination Theory (SDT) contributes by exploring students' intrinsic motivation. According to SDT, learners are inherently motivated when their psychological needs for autonomy, competence, and relatedness are met. The VLE's structure is designed to foster these needs by offering a learner-centered, flexible environment where students can practice language tasks at their own pace and receive immediate feedback, contributing to their sense of competence and proficiency.

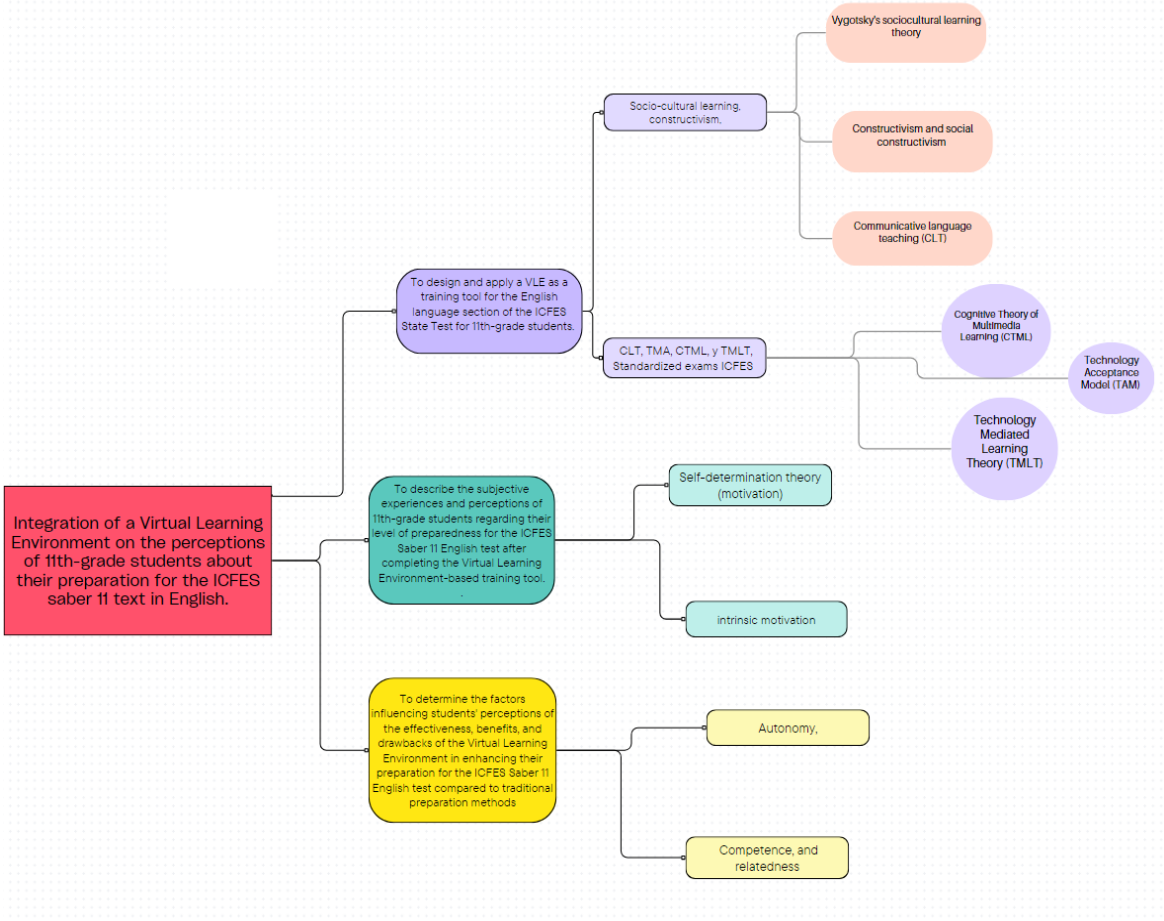
The research question, "How does the integration of a VLE as a training tool for the English language section of the ICFES State Exam improve the exam preparation process for 11th-grade students at Jorge Gaitán Durán Technical Institute?" is explored through the lens of these theoretical foundations. The study is designed to examine how the VLE influences students' perceptions of their preparedness and whether it offers any advantages over traditional preparation methods.

The conceptual framework illustrates how the present research studies how the VLE contributes to students' exam preparation by linking theoretical concepts with research objectives. The framework guides the research design, including the development of qualitative methods to gather data on students' perceptions and experiences. The analysis focuses on how

the VLE affects self-efficacy and motivation, which are key indicators of its success as an educational tool. This conceptual framework provides a comprehensive overview of the theoretical underpinnings that shape the study. By integrating TMLT, TAM, CTML, self-efficacy, and motivation theories, the study allows for the exploration of the impact of VLEs on exam preparation.

Figure 1

Connective Diagram Between Theoretical References and Fundamental Concepts



Note. This figure shows how the conceptual and theoretical tenets that inform the study relate to each other and the study's objectives. *Source*. Own elaboration.

Research Design

This is a qualitative study that seeks to understand life experiences from the subject's perspective. The study intended to address the principles for tackling practical problems and promoting positive changes within the specific context of the Jorge Gaitán Durán Technical Institute. Likewise, the research was based on qualitative methods, such as classroom observations, focus groups, and questionnaires, to gather detailed information about the students' experiences and perceptions. This chapter provides an overview of the methodological choices made considering the research type and approach as well as the context of the research, data collection techniques, and the pedagogical intervention procedures.

Methodological Design

Research Method

The research design employed is rooted in the principles of Action Research, using its iterative and participatory approach to address practical problems and encourage positive changes within a specific context (Reason & Bradbury, 2008). While the study may not encompass all the characteristics of Action Research, it draws on its principles to guide the research process. By actively engaging stakeholders and promoting collaborative research, the research design emphasizes co-learning and collective problem-solving (Stringer, 2013). This approach facilitates a deeper understanding of the context and enables the development of contextually relevant solutions.

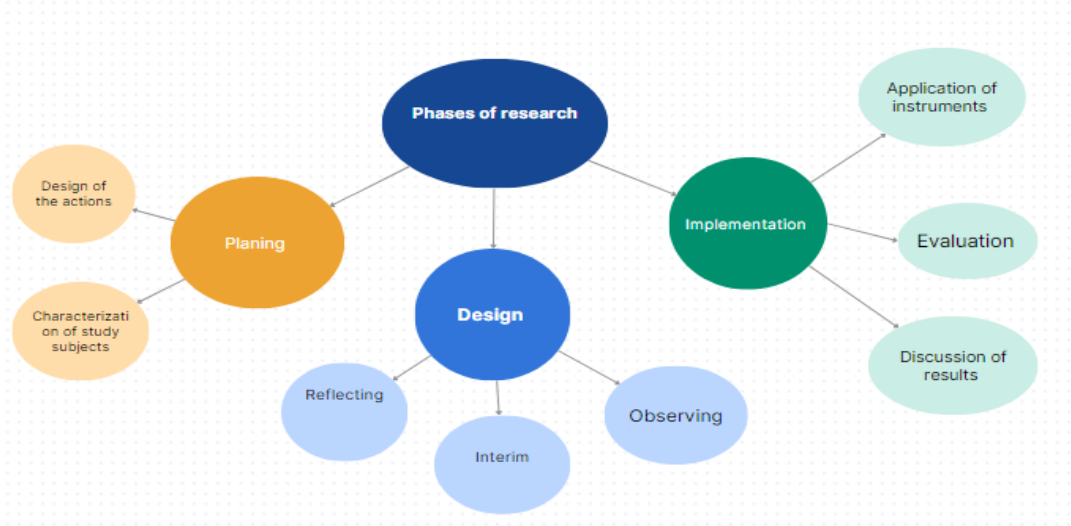
This design is particularly suitable for this study because it is context-driven and involves direct participation from the subjects of the research, namely the 11th-grade students. This approach emphasizes collaborative problem-solving, where the researcher and participants work together to assess the intervention (the VLE) and make necessary adjustments based on real-time feedback. The focus on improving educational practice is

central to action research, which aligns with the study's aim of enhancing exam preparation strategies through technological intervention.

The cyclical process of planning, acting, observing, and reflecting is well-suited for examining educational interventions in real-world settings (Creswell & Guetterma, 2019). In this context, the study not only investigates the effectiveness of the VLE but also involves continuous feedback and adjustment based on participants' experiences. This iterative process ensures that the VLE is adapted to the students' needs throughout the study. This iterative process, as shown in Figure 1 below, aligns with the objectives of action research, which aims to bridge the gap between theory and practice by fostering a dynamic and participatory research environment.

Figure 2

The Action Research Cycle



Note. Figure 2 represents the methodology of the Action Research cycle. *Source*. Creswell, (2018).

Research Approach

Qualitative research allows for in-depth exploration and understanding of complex phenomena within their natural environments (Creswell & Poth, 2017). By focusing on the subjective experiences and perspectives of participants, qualitative methods facilitate rich and nuanced insights into the dynamics of the research context. Additionally, the qualitative

nature of the study is crucial for capturing the subjective experiences and perceptions of the students, which are at the heart of the research objectives. Qualitative research allows for a deep exploration of how students experience and interact with the VLE, providing insights into their motivations, self-efficacy, and perceived effectiveness of the VLE compared to traditional methods. This approach is well-suited to address the study's sub-questions, which focus on understanding students' feelings of preparedness and the perceived benefits of the VLE.

It is to be understood that qualitative research, as has been expressed by Jiménez (2000), starts from the basic assumption that the social world is constructed of meanings and symbols. Hence, intersubjectivity is a key part of qualitative research and the starting point for reflexively capturing social meanings. The social reality thus seen is made of intersubjectively shared meanings. The objective and the objective are the intersubjective meaning attributed to an action. Qualitative research can be seen as the attempt to obtain a deep understanding of the meanings and definitions of the situation as it is presented to us by people, rather than producing a quantitative measure of their characteristics or behavior.

Meanwhile, authors such as Vera (2015) express that qualitative research is one that studies the quality of activities, relationships, issues, means, materials, or instruments in a given situation or problem. It seeks to achieve a holistic description, that is, it tries to analyze exhaustively, in great detail, a particular issue or activity.

The methods used to consider the research approach include open interviews, observation, and focus groups. Open-ended questionnaires provide flexibility for participants to express their thoughts and experiences, allowing for a deeper understanding of their perspectives. Observation allows for direct documentation of behaviors and interactions within the environment, providing valuable contextual information. Focus groups encourage

interactive discussions among participants, generating collective knowledge and perspectives through group dynamics (DeJonckheere and Vaughn, 2018).

Context of the Research

Population and Sampling Procedures

The total population for this study consists of 54 students at the Jorge Gaitán Durán Technical Institute, but the focus was on a group of 29 participants aged between 15 and 18 years. 35% are Venezuelan students, due to the close border between the two countries. Despite this, the entire group shares similar demographic characteristics, and most students come from families involved in rice farming. The sample is predominantly female with 79% students and 21% male. On average, the students' English proficiency is at an A2 level, according to the Common European Framework of Reference for Languages (CEFR).

Following Hernández Sampieri et al. (2010), a simple random probabilistic sampling method was employed, as any member of the total population was eligible due to the shared characteristics needed for participation in the study, which used a VLE as a preparation tool for the English section of the state exams. Data collection instruments varied in sample size. For the field journal, all 29 students were observed. For the questionnaires, the sample was reduced to 27 students due to connectivity issues that prevented online access for some students. Finally, a subset of 6 students was selected for the focus group instrument to gather in-depth insights, ensuring a broad range of opinions and experiences.

Population-related limitations include potential variability in English proficiency levels and academic backgrounds among students, which may influence their responses and experiences during the study. Additionally, logistical limitations, such as scheduling and access to participants within the school environment, could impact study execution. The homogeneous sampling strategy involves selecting a subset of 6 students from the 11th-grade

population to form 1 focus group founded by five students from each 11th-grade class, ensuring representation at different levels of English proficiency.

Ethical Protocol

The research proposal was academic, considering that it has educational elements to provide tools and a source of research for other master's students to follow along the lines of giving usable elements for the improvement of teaching practice. Within the ethical parameters of the research the participating high school students of the Jorge Gaitán Durán Technical Institute, in the development of the integration of a Virtual Learning Environment (VLE) as a training tool enhances the preparation process for the English section of the ICFES State Exam among 11th-grade students, legal guidelines were taken into account, likewise, the participants were not forced to make decisions in the participation of the research as subjects of study.

The research did not include any elements that could harm the study subjects or alter environmental variables. The Institutional Letter of Approval and the Informed Consent for the participating students were carefully considered and administered (see Appendix B). They explain the objective of the research, how the information was to be handled, and the research process within the educational community, with the approval and consent of the Educational Institution.

Similarly, the intellectual production derived from this research is done by the Colombian regulations under Law 23 of 1982 (Senado.gov, 2024), which establishes the protection of the academic creation of texts, research, images, and symbols, since it will contribute to the construction of the pedagogical knowledge of teacher training in the country. The contribution of the students of the Educational Institution was respected, based on the informed consent without exclusion by race, ethnicity, or religion of the participants of the proposal. In addition, the proposal did not generate risks for teachers, students, or any

member of the educational community; participation was voluntary so as not to violate the rights of the participants, who were also committed to continuing throughout the academic process

Confidentiality and anonymity are paramount to protect the privacy of participants. All data collected, including survey responses, interview transcripts, and records of academic performance, are to be kept confidential and anonymous. Participant identities should be protected by assigning unique identifiers to data rather than using personal information. Access to identifiable information should be restricted to authorized personnel only and data should be stored securely in accordance with data protection regulations and institutional guidelines (Jones & Brown, 2020).

Data Collection Techniques

Description and Rationale of the Instruments

In this research, some of the data collection techniques proposed by Escudero and Cortez (2017) are considered. The research employs a combination of instruments including classroom observations, open-ended, and focus groups to effectively address the objectives of the study. Class observations allow for a first-hand examination of students' interactions with the virtual learning environment during designated training sessions, aligning with the goal of understanding how students interact with VLE features and identifying areas for improvement in its implementation. The use of an open-ended questionnaire directly supported the goal of collecting individual perceptions of the ICFES preparation using the VLE. This questionnaire targeted students' perceived level of preparation for the ICFES Saber 11 English exam, as well as their views on the benefits and challenges of using the VLE compared to traditional methods.

Additionally, a focus group was used to facilitate in-depth discussions among selected students to explore their experiences with the VLE in greater detail. By encouraging students

to share specific examples and develop their perspectives, focus groups align with the goal of gaining deeper insights into the factors that influence students' perceptions of the effectiveness of VLE in their readiness for exam preparation. exams (Ivankovich & Araya, 2011). Together, these instruments offer a comprehensive approach to data collection, allowing the research to capture essential qualitative and subjective information to evaluate the perceived effectiveness of integrating a VLE as a preparatory tool for the ICFES Saber 11 English test. among 11th-grade students.

Data Collection Techniques

Classroom Observations. Classroom observation was vital in this study focused on 11th-grade students and their preparation for the ICFES Test. The observations offer important insights into teaching methods, student engagement, and the overall learning environment in the Jorge Gaitán Durán Technical Institute classrooms. A non-participatory observation method was used to avoid interfering with the normal progression of classroom tasks. This approach includes methodically documenting visible actions, teaching methods used by educators, student engagement, and levels of class participation.

In order to assess academic performance and preparation for the ICFES exam, the focus was shifted to various factors during classroom observations. These factors included the clarity of instructions, classroom management methods, the use of educational materials, and the integration of strategies for test preparation in daily lessons (Adelman et al., 2003). Comprehensive notes were taken to document important observations using an observation rubric (see Appendix C). This approach is based on the guide to observations in the British Council ESL classroom, which is derived from Malderez & Bodoczky (2019). The purpose of these observations was to collect primary data to improve knowledge of successful teaching techniques and identify areas of improvement to assist 11th-grade students in their academic preparation and performance on the ICFES exam.

First, classroom observations documented visible actions and interactions, providing a contextual backdrop for understanding participants' engagement with the VLE. For the application of the tool designed to record observations, an authorization protocol was formalized by the rector of the institution, and a detailed orientation was given to the participants. During this orientation, they were clearly informed of the procedure, the objectives of the project, and how the process would develop. In addition, the importance of students reading and consulting the informed consent form with their parents was emphasized to ensure their understanding and approval.

Open-ended Questionnaire. A questionnaire with open-ended questions (see Appendix D) was intricately designed to establish a direct correlation with the specific categories and objectives of the study. By probing students' perceptions of their preparation for the ICFES Saber 11 English test after participating in the virtual learning environment, the questionnaire aimed to describe and analyze students' subjective experiences after training based on VLE (Geer, 1988). Additionally, the questionnaire explored students' views on the benefits of the VLE compared to traditional preparation methods, directly aligning with the second specific objective of determining the factors that influence students' perceptions of the effectiveness of the VLE.

Additionally, the interview questionnaire targeted specific features or aspects of the VLE that students find helpful or challenging, which directly connects to the third specific objective that seeks to understand how the VLE contributes to students' perceptions of readiness. for the English exam. Through this comprehensive approach, open-ended questions served as a critical instrument for collecting qualitative data that deepens the understanding of students' experiences with the VLE and contribute valuable insights to achieve the overall goal of evaluating the perceived effectiveness the VLE for the ICFES preparation among 11th grade students.

Focus Group. The focus group was an important data collection technique in this research as it allowed the researcher to gather in-depth qualitative insights from the participants. Focus groups involve a series of carefully planned discussions designed to obtain insights about a defined area of interest in a permissive, non-threatening environment (Godoy et al., 2023). By facilitating group discussions, the researcher was able to obtain detailed feedback, explore underlying motivations, and gain a deeper understanding of participants' perspectives on the integration of virtual learning environments and their preparation for the ICFES Saber 11 English test.

For the focus group, a script (see Appendix E) was used, which was previously validated by some experts who suggested including some key elements such as the role of the researcher, the objective of the discussion, the available resources, and the participants involved. The notes and analytical considerations sections provided a structured approach to documenting observations and identifying emerging themes during focus group sessions (Creswell, 2018). This comprehensive focus group design ensured that the researcher could collect valuable qualitative data to complement the quantitative findings, leading to a more holistic understanding of the research problem.

Validation Procedures

The validation process of the study focused on the review and improvement of data collection instruments, designed based on key concepts from the theoretical framework. The three instruments were reviewed by an expert tutor to ensure the instruments were relevant and useful for obtaining meaningful data. The review aimed to ensure that each instrument adequately captured the students' perceptions of using the Virtual Learning Environment in their readiness for the ICFES English exam. As a result of the validation, several improvements were made to the instruments. Redundant questions were removed, and those that were not aligned with the study's objectives were adjusted to focus on aspects directly

related to students' perceptions. Additionally, the script of the instruments was improved to make it clearer and more coherent, facilitating the collection of accurate data. This process ensured that the instruments were more effective and contributed to obtaining valid and relevant information for the research purposes.

Pedagogical Intervention and Application

Development of Application

The pedagogical intervention for 11th-grade students at the Jorge Gaitán Durán Technological Institute was developed to address their specific academic needs, particularly their preparation for the English section of the ICFES State Exam. This intervention emplied a blended learning approach by combining traditional classroom instruction with a VLE, which attempted to create an interactive and flexible learning experience. The intervention was organized into clear steps to ensure that the goals were met effectively.

Phase 1: Needs Analysis and Planning. In the initial phase, the study focused on identifying the academic needs of the students, based on the previous year's ICFES results and academic performance indicators. This analysis highlighted key areas where students required support, which included reading comprehension, vocabulary, and familiarity with the exam format. The data collected during this phase informed the design of the VLE because it allowed the researcher to align it with the structure of ICFES-type tests and target essential linguistic competencies for English (Smith, 2023).

This phase also established that the intervention would follow the pedagogical principles of Communicative Language Teaching (CLT) and Task-Based Learning (TBL), both of which prioritize meaningful language use in real-life contexts. These approaches shaped the tasks incorporated into the VLE and ensured that the learning activities focused on practical, exam-relevant language skills.

Phase 2: VLE Design Based on Learning Theories. The design of the VLE (see Appendix F) was a crucial part of the intervention as it directly connected to the first specific objective. This design was informed by Technology-Mediated Learning Theory (TMLT), the Technology Acceptance Model (TAM), and the Cognitive Theory of Multimedia Learning (CTML). While the ADDIE model (Analysis, Design, Development, Implementation, Evaluation) was referenced for its systematic instructional design approach, the primary focus shifted to creating a student-centered VLE that was interactive, user-friendly, and aligned with proven learning theories (FUOC, 2023).

The design of the VLE emphasized learner control, which allowed students to access materials, complete tasks, and review lessons at their own pace. This flexibility encouraged self-directed learning and gave students the autonomy to revisit content as necessary. Similarly active participation was a cornerstone of this design. Additionally, the VLE provided students with instant access to a range of multimedia resources. These features aligned with the TMLT, ensuring that students could access learning materials anytime and anywhere, fostering independent learning (Jones & Brown, 2023).

According to the Technology Acceptance Model, technology adoption is influenced by how easy and useful users find it. To ensure high acceptance, the VLE was designed with a simple interface that required minimal technological expertise. Navigation was easy and intuitive, which allowed students to move between lessons, activities, and resources with ease. This gave students the flexibility to study on different platforms (Smith, 2023). The perceived usefulness of the VLE was demonstrated through features like real-time feedback and progress tracking, which helped students monitor their performance and understand areas for improvement.

Furthermore, drawing on the Cognitive Theory of Multimedia Learning, the VLE incorporated a blend of text, images, and interactive media to enhance learning. Research

shows that the combination of text and graphics leads to deeper cognitive processing than text alone (Smith, 2023). During the design process, it was expected that by presenting content through different modalities, the VLE helped students process and retain information more effectively, in line with CTML principles. This was particularly useful for preparing students for the ICFES exam, as it improved comprehension and retention of complex material (FUOC, 2023).

Phase 3: Blended Learning Implementation. In this phase, the intervention incorporated blended learning by combining in-person instruction with online VLE activities. Classroom sessions provided students with a structured environment to learn core concepts, engage in discussions, and receive direct feedback from the teacher. The online component, delivered through the VLE, allowed students to continue learning independently outside of the classroom.

This blended approach offered several advantages. It created a flexible learning environment where students could work at their own pace during the session. The online tasks were based on Task-Based Learning (TBL) principles, mirroring real-world language tasks, such as mock ICFES reading comprehension tests and vocabulary-building activities. These activities not only supported language acquisition but also helped students practice under exam-like conditions, which is very important to make the learning process more relevant and practical (Jones & Brown, 2023).

Phase 4: Monitoring and Feedback. The intervention placed a strong emphasis on ongoing monitoring and feedback to support student progress. The learning strategy incorporated allowed students to reflect and track their performance on the different tasks with the help of the instructor and the thorough and documented observation procedures mentioned earlier in the chapter. This provided both students and the teacher with real-time

data on learning outcomes. This allowed for adaptive teaching strategies, where the teacher was able to adjust their instruction based on student needs and performance.

Students were also encouraged to reflect on their progress and collaborate with peers throughout the process. This element of the intervention was grounded in social constructivist theory, which emphasizes the role of collaborative learning in developing knowledge and skills.

Phase 5: Evaluation and Reflection. The final phase of the intervention involved evaluating the effectiveness of the VLE and the overall learning approach as perceived by the learners, addressing the specific objectives 2 and 3. Student feedback was gathered through an open-ended questionnaire, a focus group session, and structured observation. This allowed the researcher to qualitatively assess the perceived usefulness and ease of use of the VLE, in accordance with the Technology Acceptance Model (TAM) (Smith, 2023). Reflective activities allowed students to express their views on the intervention's impact on their learning and exam preparation.

This pedagogical intervention, organized into five distinct phases, was designed to enhance 11th-grade students' preparation for the ICFES exam through a blended learning approach that incorporated a VLE. While the ADDIE model provided a general framework for instructional design, the VLE was primarily guided by the principles of Technology-Mediated Learning Theory, Technology Acceptance Model, and the Cognitive Theory of Multimedia Learning.

Data Analysis

The aim of this research is to investigate how using a VLE as a training resource improves the preparation process for the English section of the ICFES State Exam, as perceived by the learners and based on their experience with the resource. This chapter presents the analysis and results of the study. It begins with a description of how the collected data was managed, including organization, coding, and interpretation. The analysis is then structured around the main categories and subcategories, which were developed in alignment with the study's theoretical framework. Finally, the chapter presents the results, organized according to these categories, providing insights into the effectiveness of the VLE in improving students' exam readiness and overall learning experience.

Data Management Procedures

The methodological approach of this study was based on the collection of qualitative data, which was subjected to a systematic process of organization and analysis to obtain a meaningful understanding of the research topic. Initially, field notes were analyzed, taking into account the objectives and research questions. These notes included detailed observations of participation, reactions, and ways of addressing individual and collaborative challenges. This preliminary analysis helped assess the effectiveness of the VLE and its impact on English exam preparation. The data were classified based on key elements such as the structure of the ICFES Saber 11 English test, the content covered, and the activities carried out on platforms such as Google Sites, Educaplay, H5P, Quizizz, and Genially. The notes also documented the students' progress in recognizing vocabulary and identifying the sounds of the English alphabet, as well as their motivation and reactions during interactive activities. The questionnaire data were collected using Google Forms, which provided a quick and effective way to organize and ready responses based on the students' experiences and perspectives regarding their level of preparation in terms of confidence and motivation.

This data set, along with the data obtained from the focus group, was processed and analyzed using Microsoft Word (see Appendix G). First, the predefined categories of the study were used as a starting point. Then, a general thematic analysis (Belotto, 2018) was performed following Saldaña's structural coding (Saldaña, 2009). This structural coding system was carried out considering the key concepts relevant to the theoretical framework and the research questions. In light of the coding process, a comprehensive view emerged of students' perceptions of the effectiveness, benefits, and drawbacks of the VLE in enhancing their preparation for the ICFES Saber 11 English test. The observation matrix, questionnaire, and focus group allowed for a detailed understanding of students' opinions on key topics such as the effectiveness of the virtual learning environment, their level of preparation for the English exam, and their perceptions of the use of technological tools compared to other learning methods.

Categories

Before implementing the instruments, the researcher established a categorization based on the theoretical framework by analyzing key elements of each theory and defining them as codes. After identifying common codes and patterns, a priori categories were defined to encompass the different points of interest. This initial categorization allowed the researcher to create a structured approach to analyzing the data collected from multiple instruments. Furthermore, this process left room for emerging categories based on the data collected, allowing for a comprehensive and dynamic analysis. The analysis of the emerging categories and codes emphasizes the researcher's objective to determine the relevance of the student's story and interpret his or her perceptions in light of the theories established to support the research. These categories arise from their relevance to the answers obtained from the guiding research questions. Likewise, the emerging coding is established from the students' contributions at each stage of the theoretical disquisition of the results.

Table 4

Theoretical a Priori Codes

Theoretical framework	Category and description	Subcategory and description	Codes
Cognitive Theory of Multimedia Learning (CTML) Communicative language teaching (CLT)	Perceived level of preparedness	Self-Efficacy and Confidence	Motivation. Experience success (Persistence)
Vygotsky's learning theory Constructivism and social constructivism Self-efficacy from Bandura's sociocognitive theory	Factors that contribute to learners' self-confidence	Autonomy Learners' sense of control. Relatedness, Interaction, and Collaboration	Autonomy Self-reflection Readiness Control Relatedness Sharing
Technology-mediated learning theory (TMLT) Technology Acceptance Model (TAM) Cognitive Theory of Multimedia Learning (CTML)	VLE perceived effectiveness	Access to Resources and Technology Integration. Perceived usefulness. Perceived ease of use. Perceived benefits. Perceived drawbacks.	Use of multimedia. Perceived benefits. Perceived drawbacks.

Note. This table shows the emerging categories and codes of the study.

The first category, "Perceived Level of Preparedness," assesses how students perceive their readiness for the ICFES Saber 11 English exam after using the Virtual Learning Environment (VLE). Self-efficacy and confidence have been established as a subcategory, as they help identify students' increased self-confidence and belief in their ability to tackle the test. Students have expressed increased motivation due to the gamified features of the VLE. The second category, "Factors that Contribute to Learners' Self-Confidence," explores the specific factors within the VLE that boost students' self-confidence. Its subcategory, Autonomy, demonstrates students' ability to control the learning process, enhancing their sense of autonomy. Students have expressed a stronger sense of control when interacting with peers through the VLE to support the learning process. The last category, "VLE Perceived Effectiveness," examines how students perceive the overall effectiveness of the VLE. It was observed that students found the VLE to be highly useful in improving specific language skills.

Results

This research aimed to integrate a Virtual Learning Environment (VLE) to enhance the preparation of 11th-grade students for the ICFES Saber 11 English exam at Jorge Gaitán Durán Technical Institute in Agua Clara, Cúcuta, Norte de Santander. For clarity, the results are organized according to categories that align with the objectives, highlighting key components necessary for interpreting the perceptions of the participating students. Additionally, the organization of the results follows the sequence of the categories in the same order as described in Table 3 presented above.

Perceived Level of Preparedness

The integration of the Virtual Learning Environment (VLE) was perceived by students as a highly effective tool for their preparation for the ICFES Saber 11 English exam. Many students emphasized that the VLE provided them with a variety of resources and tools

that allowed them to practice independently and reinforce their English skills outside the classroom. This autonomy was repeatedly mentioned as a key factor in enhancing their confidence and preparedness. As one student remarked, the VLE *"allowed us to know each part of the test and how to respond"*. Additionally, the personalized nature of the VLE, with its interactive and adaptive features, was seen as a positive influence on the students' confidence. Many appreciated the opportunity to revisit incorrect answers and improve upon them. One student stated that the VLE *"helped me feel more confident in my English abilities and less worried about making mistakes"*.

The alignment between the VLE activities and the specific sections of the ICFES exam also contributed to a more targeted and effective preparation process. Students frequently mentioned that the simulations and quizzes helped them better understand what the test would entail and allowed them to practice in a format similar to the actual exam. One student commented, *"It helped me familiarize myself with the test structure, and I now feel more confident in each part"*.

Self-Efficacy and Confidence. Students reported a significant increase in confidence, particularly after becoming familiar with the exam structure through repeated practice. One student shared feeling *"more confident answering the English questions"* due to understanding the test format. The interactive, gamified elements of the VLE further boosted motivation, as another student highlighted that the competitive points system encouraged more dedicated studying. Persistence was also evident, with students consistently practicing despite challenges. As one participant mentioned, the VLE helped them *"understand errors and improve."* This combination of self-efficacy, motivation, and persistence significantly enhanced students' readiness for the exam in English due to the purpose of developing an instructive related to the structure of the different questions and the authentic practices of the English language through the series of interactive activities of the VLE resource.

Teachers played a crucial role in monitoring progress through the VLE analytics, providing tailored feedback and support. This continuous feedback loop, as noted by students, helped address their weaknesses and solidify their understanding of key concepts, thus further increasing their perceived readiness. *"Thanks to the VLE and the feedback from teachers, I improved my vocabulary and reading comprehension, which boosted my confidence".*

Overall, the students consistently reported feeling more prepared for the ICFES exam after using the VLE, with many attributing their increased confidence and improved test scores to the comprehensive and interactive nature of the platform.

Factors that Contribute to Learners' Self-confidence

The factors contributing to students' self-confidence through the use of a VLE for state exam preparation are represented by aspects such as Autonomy, Learners' sense of control, Relatedness, and Interaction and collaboration. The interactive and gamified elements of the VLE significantly enhance students' willingness to engage in challenging learning processes, particularly when dealing with a language that presents a challenge. Therefore, this highlights the importance of integrating dynamic and participatory approaches in educational environments to effectively boost aspects that contribute to and respond to new forms of learning.

Autonomy. The VLE fostered a sense of autonomy by allowing students to manage their learning pace and take control of their study routines. Many students appreciated the flexibility it provided, enabling them to practice independently and at their own pace (e.g., *"The VLE gave me the tools and the right environment to prepare effectively and at my own pace for the ICFES Saber 11 English test"* This autonomy was a key factor in boosting their self-confidence, as students could tailor their preparation to their needs and weaknesses, helping them feel more prepared and in control by the interaction with different resources designed on the Virtual Learning Environment.

Figure 3

Classroom Intervention

Note. Photographic evidence of the pedagogical intervention. Own elaboration.

Learners' Sense of Control. The VLE offered students the ability to retry activities, which played a crucial role in their persistence. Students were able to learn from their mistakes, which led to gradual improvement in their understanding of the exam structure and content. For example, one student explained how the platform allowed them to identify and correct errors: *"The fact that it lets you try again if you get something wrong really helps because then you can see what your mistake was and choose the right answer".* This iterative process not only reinforced their learning but also contributed to their self-efficacy and confidence in their English exam preparation. Many students noted that the structured format of the VLE helped them understand what to expect and how to respond to questions effectively, giving them a greater sense of confidence e.g., *"It gives us an example and prepares us for the exam, it helps us know each part of the exam and know how to answer it".* The platform's interactive nature and the opportunity to engage in repeated exercises helped

reinforce their learning, as students mentioned feeling more assured about their knowledge and performance in the exam e.g., *"It made me feel more confident because I know how to handle each part of the exam"*.

Figure 4

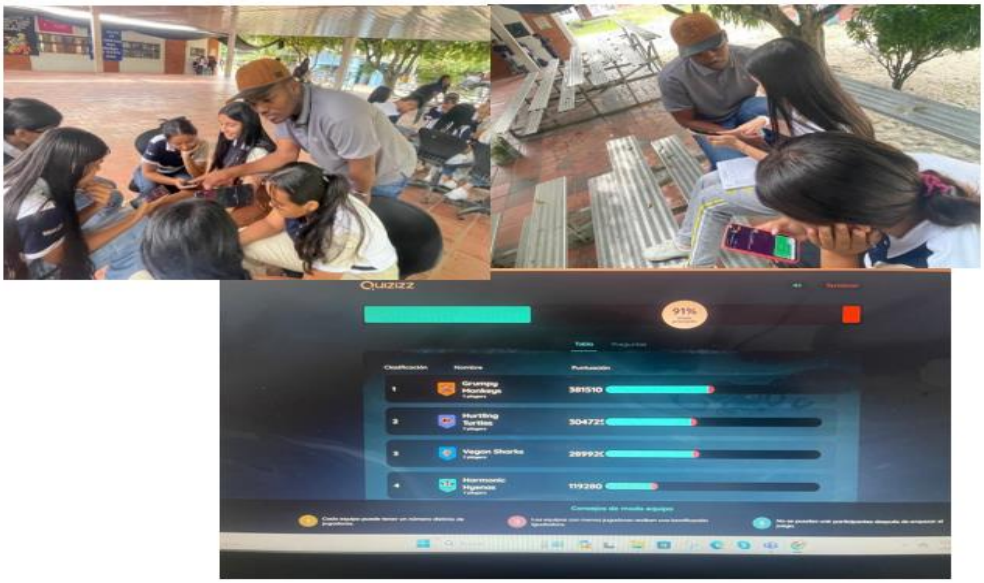
Students Using the VLE on their Own and with the Teacher's Assistance.

Note. Fountain. Own elaboration.

Relatedness, Interaction, and Collaboration. Collaboration with peers through the VLE was another important factor in reinforcing students' knowledge and improving their vocabulary in English. Many students found that working with others in the VLE helped them to enhance their language proficiency and feel more comfortable developing expressing and mock exams English e.g., *"It helps me interact with others in English, and this makes me more confident"*. This collaborative environment created a sense of shared learning goals, contributing to students' overall confidence in their language ability.

Figure 5

Classroom Intervention.



Note. Own elaboration.

Figure 6

Collaborative Activities.

Note. Own elaboration.

VLE Perceived Effectiveness, Benefits, and Drawbacks

This category examines students' perspectives on the overall impact of using the VLE to prepare for the English section of the ICFES exam. These results focus on revealing how students perceived the effectiveness, benefits, and drawbacks of the VLE as a learning tool,

considering factors such as access to resources, technology integration, perceived usefulness, ease of use, and the integration of multimedia elements. By exploring these key aspects, the study aims to shed light on how the VLE influenced students' exam preparation experience and their overall perception of its effectiveness compared to traditional methods. This category provides an in-depth look at how the VLE met the students' needs and highlights both its potential advantages and limitations.

The process of implementing and using the designed resource facilitated extensive interaction with the VLE through resources like games and simulations, which were appropriate for evaluating the VLE in terms of key subcategories such as access to resources and technology integration, perceived usefulness, perceived ease of use, use of multimedia, perceived benefits, and perceived drawbacks.

Access to Resources and Technology Integration. Students highlighted how the VLE provided essential tools and convenient access to practice for the ICFES exam. The online platforms, resources, and various materials enabled targeted preparation and continuous practice. One student emphasized this by stating, *"With the help of virtual platforms, we can improve our knowledge."* The VLE gave students the flexibility to study at their own pace, revisit materials when needed, and customize their learning experience to match their individual needs. Furthermore, the inclusion of multimedia elements like simulations and quizzes fostered deeper engagement with the content. These interactive tools made learning more dynamic because they encouraged active participation and enhanced retention through immediate feedback and practice in real-world contexts. The easy access to such a wide range of resources was key to the perceived effectiveness of the VLE since students recognized that they were able to engage in meaningful, self-directed learning.

Perceived Usefulness. The VLE was widely regarded by students as a highly practical and beneficial tool for their ICFES exam preparation. The platform’s design and

content specifically targeted the skills and knowledge required for the exam. This made it relevant and valuable to their study needs. One student remarked, *"It helps us know each part of the exam and how to answer it.".* This showed the perceived value of the platform in breaking down complex tasks into manageable parts. This perceived usefulness was reinforced by observed improvements in students' test scores and overall retention of information during the observation sessions. The VLE's practical application to real exam scenarios increased students' confidence and sense of preparedness.

Perceived Ease of Use. Another key factor in the VLE's perceived effectiveness was its ease of use. Many students described the platform as intuitive and user-friendly, which made it an accessible tool even for those who might not be particularly tech-savvy. One student described the experience as "*efficient and productive,"* while another noted that it was *"simple and easy to use."* The platform's design allowed students to quickly access relevant resources without unnecessary complexity. This seems to have facilitated smooth navigation and minimized frustration. The ease of use contributed significantly to student engagement since the low barrier to entry meant more time could be spent on actual learning rather than navigating the technology.

Use of Multimedia. The integration of multimedia resources within the VLE played a central role in maintaining students' engagement and enhancing their understanding. Interactive materials such as videos, games, and activities helped develop key language skills through varied and engaging formats. One student noted, "*The interactive materials, videos, and activities helped develop key skills like listening, reading, writing, and speaking."* This use of multimedia not only enriched the learning experience but also helped break down difficult concepts into digestible segments. The interactive nature of these resources seems to have encouraged active learning, making the material more memorable and easier to grasp.

Together, these subcategories highlight both the benefits of using a VLE for exam preparation. While students generally perceived the VLE as an effective tool that improved their readiness for the ICFES exam, the results also suggest that factors such as learning preferences, self-regulation, and potential distractions play a significant role in how effective the VLE is for individual learners.

As observed before, the primary benefits highlighted by students were increased confidence, better understanding of the exam format, and improved outcomes in exam drills. One student reported: *"It helps us manage information needed for the tests, and improves our knowledge".* Another noted that it *"made learning easier to understand and retain",* underscoring the perceived positive impact of the VLE on their learning outcomes.

However, despite the benefits, some students mentioned limitations, such as the potential for distraction or a lack of deeper engagement during passive activities. One student commented on the use of mobile phones, stating: "*While the VLE can be very effective, sometimes the use of the phone can be distracting".* Additionally, others pointed out that not all students may find the VLE effective due to different learning preferences or connectivity issues. Table 4 shows some of the excerpts of the data collected in the focus group that reveal some of the perceived levels of preparedness, factors that influence their self-confidence, and the overall perceived effectiveness of the resource.

Table 5

Student Narratives.

Categories	Excerpts
Perceived level of preparedness	"It gives us an example and prepares us for the exam, it helps us know each part of the exam and know how to answer it." "It helps manage the information needed for testing." "It helps us to be more prepared for the test and have knowledge of how it is constituted." "It helps us know the 7 parts that will be achieved in this test." "The videos and practicing the gameplay have been useful for my preparation." "Interactive activities like Quizizz and simulations have allowed me to develop key skills."

Factors that contribute to learners' self-confidence	"I feel more confident in my learning and preparation for the exam." "Interacting with the VLE has given me confidence to learn more about the application of the exam." "The VLE has given me the opportunity to control my learning process and prepare at my own pace." "I have developed self-learning and responsibility skills that will be useful in my academic future." "It has helped me a lot with my score, before my score in English was 46 points and now it is 62 points."
VLE perceived effectiveness	"Super effective because it makes it easier for us to understand and transmit things." "Knowledge is reinforced and communication in English is developed by interacting with other people." "A very fun and pleasant experience, since while you play and solve puzzles, you are learning." "It has been very positive for me. The VLE has provided me with a series of resources that have allowed me to learn effectively." "Excellent, I have learned to interact, interpret, respond, and ask questions in English." "Well, simple and easy. It has helped me improve my grades and knowledge."

Note. This table shows some student narratives regarding their learning experiences. Own source.

Discussions and Conclusions

This chapter elaborates on the significance of the findings presented in the previous section, analyzing their pedagogical and research implications. It highlights how these results contribute to a deeper understanding of the role of Virtual Learning Environments (VLEs) in language education, while also acknowledging the study's limitations. Additionally, it offers practical recommendations for improving VLE integration and suggests areas for further research to enhance the effectiveness of these digital tools in preparing students for standardized exams.

Discussion

The findings highlighted in the previous chapter underscore the transformative potential of integrating a VLE into the educational framework to prepare 11th-grade students for the ICFES Saber 11 English exam. The VLE significantly improved student engagement and motivation, with interactive and gamified elements proving particularly effective. However, it is important to note that the increased engagement in interactive activities may not translate into sustained interest without addressing deeper issues related to language learning anxiety and long-term interest.

Related studies on the perception of students and teachers of online programs highlight the interest of researchers and institutions in the way in which their actors conceive and live the educational experiences of this modality. Researchers have endeavored to analyze the perception that students have about the dimensions of the quality of these programs and the input that they value for being a guide that helps them make a decision about the appropriate programs and institutions. That is why it is vitally important to know the experience of students about virtual education models and their impact on training since they are the protagonists of the teaching-learning process. In relation to the above, the results of the research on the integration of a VLE at the Jorge Gaitán Durán Technical Institute align

well with several important studies in the field of technology-enhanced education. A notable study by Başar and Şahin (2022) highlights the positive impact of technology integration in English language education, emphasizing the need to adapt traditional teaching methods for digital natives. These findings echo this perspective and show that the interactive and gamified elements of the VLE significantly increased student engagement and motivation; this correlation underscores the importance of creating student-centered environments to foster better educational outcomes.

Similarly, Ramírez et al. (2020) focus on the role of pedagogical mediation through ICT and virtual learning environments. Their study emphasizes the importance of techno-pedagogical mediation to achieve effective teaching and learning; In this context, this research reflects this by pointing out the challenges related to connectivity and access to technology, highlighting the need for strong techno-pedagogical support. Successful implementation of the VLE, as indicated by improvements in student performance and confidence in preparing for the ICFES Saber 11 exam, aligns with the effective use of virtual tutoring platforms discussed by Ramírez et al. (2020).

That is why Ching and Roberts (2020) explored the role of educational technology and technology-enhanced learning (TEL) in improving educational practices. Their study emphasizes how digital tools can improve teaching and learning experiences by giving students greater autonomy and control. This is reflected in these findings, which show that the VLE facilitated student autonomy and control over their learning process; The effectiveness of the VLE in creating a more engaging and effective learning environment corroborates Ching and Roberts' claims about the benefits of innovative technology.

Bonilla and Cifuentes (2022) examine the use of digital platforms to promote reading comprehension and improve English language skills for standardized testing. The current research aligns with Bonilla's study by demonstrating that the VLE effectively supported

students in preparing for the ICFES Saber 11 exam; The interactive and engaging resources provided by the VLE contributed to improving language skills and exam preparation, reinforcing the effectiveness of digital platforms in educational environments.

The results presented refer to the findings of studies published by Rifiyanti et al. (2023) on TOEFL preparation courses, which provides additional context for understanding how VLEs can affect test scores. Their research highlights the benefits of preparation courses in improving test performance, which parallels their findings that the VLE intervention improved students' scores on the ICFES Saber 11 English test. The provision of specific practices and resources coincides with the advantages of the preparation courses discussed in their study.

Their contributions focused on the key components of Virtual Learning Environments, such as flexibility in terms of time and space for participation in class. The advantage of organizing the schedule at the student's own pace is recognized, with the student being the owner of his or her own time, avoiding displacement and without pressure from direct contact with the teacher and distraction from other classmates.

These findings resonate with the broader consensus in the reviewed literature; Studies collectively support the notion that interactive, technology-enhanced learning environments can significantly increase student engagement and motivation. They also emphasize the benefits of student autonomy and the need for supporting infrastructure, particularly to address challenges related to technology and connectivity.

Research Implications for Field Study

Research on the integration of a VLE at the Jorge Gaitán Durán Technical Institute reveals several significant pedagogical and practical implications for the field of education, particularly in the context of standardized exam preparation. The findings underline the role of VLE in significantly improving student engagement and motivation. Firstly, the interactive

and gamified elements of the VLE not only increased engagement but also created a more dynamic and stimulating learning environment. This suggests that educators should integrate similar interactive technologies into their curriculum to encourage greater engagement and student enthusiasm for learning, therefore, implementing gamification and interactive elements can make learning more enjoyable and effective, potentially leading to better academic results.

The research also highlights the effectiveness of the VLE in promoting learner autonomy. Considering the information collected, it has been clarified that students had the opportunity to control their learning pace and explore resources independently, which contributed to their greater confidence and preparation for the ICFES Saber 11 exam. This aligns with the broader educational goal of encouraging self-directed learning, where students are empowered to take charge of their educational journey. Therefore, educational institutions should consider incorporating tools that support autonomous learning, such as VLEs, to cultivate independent and motivated learners.

The VLE has proven to be a valuable tool for improving student engagement and motivation through its interactive and gamified elements. By fostering a competitive and enjoyable learning atmosphere, the VLE has successfully increased students' interest and confidence in preparing for the ICFES Saber 11 English. proof. However, to achieve long-term improvements in language learning, it is essential to complement the VLE with strategies that address deeper motivational and psychological barriers.

Additionally, the study identifies challenges related to access to technology and connectivity, which are critical factors in the effective implementation of VLEs. These challenges highlight the need for robust infrastructure and support systems to ensure equitable access to technology. Consequently, schools and educational institutions should address these issues by investing in reliable technological infrastructure and providing the necessary

support to overcome connectivity problems; Ensuring that all students have access to necessary resources is essential to maximizing the benefits of technology-enhanced learning environments.

Additionally, the success of the VLE in preparing students for the ICFES Saber 11 exam suggests that strategic use of technology can improve exam preparation. The interactive tools and resources provided by the VLE facilitated targeted practice and skill development, which are crucial to improving test performance. Educational programs should consider integrating technology-based tools and platforms into their test preparation strategies to better help students achieve their academic goals.

VLE integration demonstrated notable pedagogical benefits, particularly in fostering learner autonomy and control. The results show that students were able to navigate their learning independently, which was reflected in their improved preparation and confidence for the exam. The hybrid learning environment, despite its challenges, offered a flexible and resilient educational approach, adapting to various learning needs and circumstances and, finally, the successful use of the VLE suggests that educational institutions should consider adopting tools similar to interactive and autonomous learning programs to improve student engagement and learning outcomes.

Limitations of the Research in the Present Study

The research highlights the crucial role of technology integration in modern education, especially in language learning. The positive reception of the virtual learning environment (VLE) and its effectiveness in preparing students for exams suggests that future research should examine the broader application of such environments in various subjects and educational settings. Furthermore, the need for a robust technological infrastructure is evident, indicating the need for further research and development in this area.

Several limitations were identified during the study; The most important challenge was connectivity issues and limited technological access, which hindered the smooth implementation of VLE activities. The temporary increase in motivation from interactive elements also reveals a limitation in maintaining long-term commitment. Additionally, the study was limited to a specific demographic and geographic region, which may restrict the applicability of the findings to other contexts. Additionally, limitations related to time and resources affected the depth and breadth of the study, highlighting the need for more extensive research with broader resources and longer time frames to fully explore the potential of VLEs in diverse educational settings.

Recommendations for Future Research

To build on the insights gained in this study, future research should focus on several key areas. First, it is essential to investigate the long-term impacts of VLE integration on student motivation and language proficiency because understanding how sustained use of VLEs influences student engagement and learning outcomes over an extended period can provide valuable information for educators and policymakers. Furthermore, it is essential to explore the effectiveness of VLEs in different subjects and educational levels. This research can help determine whether the benefits observed in language learning can be replicated in other disciplines, thus expanding the application of VLEs in various educational contexts.

Another critical area of focus is evaluating how improved technological infrastructure impacts the effectiveness of hybrid learning environments. Therefore, improving technological resources and connectivity could significantly influence the success and scalability of VLEs, making them more accessible and reliable for a wider range of students. Furthermore, future research should aim to develop strategies that address deeper motivational and psychological barriers in language learning; By identifying and mitigating

factors that hinder long-term engagement and trust, educators can create more effective and supportive learning environments.

Finally, expanding the demographic and geographic scope of studies is essential to improve the generalizability of findings; Research that includes diverse populations and settings can provide a more comprehensive understanding of the role and impact of VLEs in education, ensuring that the benefits of these tools can be realized in different contexts. By addressing these areas, future research can contribute significantly to the body of knowledge on virtual learning environments, paving the way for more effective and inclusive educational practices.

Conclusions

The integration of a VLE at the Jorge Gaitán Durán Technical Institute has proven to be an effective tool for preparing 11th-grade students for the ICFES Saber 11 English exam. The main objective of this study was to explore how the integration of a Virtual Learning Environment (VLE) as a training tool enhances the preparation process for the English section of the ICFES State Exam among 11th-grade students at Jorge Gaitán Durán Technical Institute, ultimately leading to better performance and better test preparation, which aligns with the overall goal of demonstrating the potential of the VLE for revolutionize educational practices and support student achievement.

In pursuit of the specific objectives, the study aimed to first design and implement a VLE adapted to the English language section of the ICFES Saber 11 test. The development and implementation of the VLE provided students with a variety of interactive resources and opportunities of practice, which was effective in addressing their learning needs; This approach allowed students to interact with the material in a dynamic and engaging way, fostering a deeper understanding of the content and improving their preparation for exams.

The study also sought to capture and describe students' subjective experiences and perceptions regarding their preparation for the ICFES Saber 11 English test after interacting with the VLE. Feedback collected revealed that students felt more confident and better prepared for the exam as a result of using the VLE. This positive reception underscores the value of incorporating technology into the learning process as it aligns with students' preferences and learning styles, enhancing their overall learning experience.

Another specific objective was to identify and analyze the factors that influence students' perceptions of the effectiveness, benefits, and drawbacks of VLE compared to traditional preparation methods. The research highlighted several key factors, including the interactive nature of the VLE, the flexibility it offers for self-paced learning, and challenges related to access to technology and connectivity. While the VLE provided numerous benefits, such as increased engagement and personalized learning experiences, issues with technology infrastructure and access emerged as significant challenges that need to be addressed.

Furthermore, the study aimed to analyze how the VLE contributed to students' perception of preparation for the ICFES Saber 11 English test; The results demonstrated that the VLE played a crucial role in improving students' preparation for the exams by offering specific practices and resources aligned with the exam requirements. This supports the conclusion that well-designed technology-enhanced tools can effectively bridge the gap between traditional teaching methods and modern educational needs, providing a more comprehensive and supportive learning environment.

The research highlights the transformative potential of integrating VLEs into educational practices; The successful application of the VLE at the Jorge Gaitán Durán Technical Institute highlights its effectiveness in improving student engagement, motivation, and exam preparation. In the future, educational institutions are encouraged to explore and adopt similar technologies to foster learner autonomy and create more interactive and

effective learning environments. Addressing challenges related to technology access and connectivity will be crucial to maximizing the benefits of VLEs and ensuring equitable access for all students; Additionally, additional research should focus on the long-term impacts of technology-enhanced learning and develop strategies to sustain student motivation and connectedness. commitment.

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List of Appendices

Appendix A

Resumen Analítico de Estudio RAE

Resumen Analítico de Estudio RAE

1. Información General

Tipo de documento	Tesis
Acceso al documento	Reporte de investigación presentado a la Escuela de Ciencias de la Educación – ECEDU en cumplimiento parcial de los requisitos para el grado de Magister en Mediación Pedagógica en el Aprendizaje del Inglés
Título del documento	Integration of a Virtual Learning Environment on the perceptions of 11th-grade students about their preparation for the ICFES saber 11 text in English.
Autor	Jesús Alberto Córdoba Mosquera
Publicación	2024
Palabras claves	Entorno Virtual de Aprendizaje (EVA), ICFES Saber 11°, Percepción de los estudiantes.

2. Descripción

Esta investigación tuvo como objetivo principal explorar cómo la integración de un Entorno Virtual de Aprendizaje (EVA) mejora la preparación de los estudiantes de grado 11 del Instituto Técnico Jorge Gaitán Durán para la sección de inglés del Examen de Estado ICFES. Se diseñó y aplicó un EVA específico para esta sección del examen, y se tomaron en cuenta las experiencias subjetivas y percepciones de los estudiantes con respecto a su nivel de preparación tras utilizar esta herramienta. Además, se analizaron los factores que influyen en las percepciones de los estudiantes sobre la efectividad, beneficios y desventajas del EVA en comparación con los métodos tradicionales de preparación. El enfoque metodológico fue cualitativo, utilizando observaciones en el aula, grupos focales y cuestionarios para recopilar información detallada sobre las experiencias de los estudiantes. Los resultados indicaron una - del EVA por parte de los estudiantes, quienes mostraron participación activa y destacaron mejoras en su nivel de confianza y preparación para el examen. Los hallazgos sugieren que el EVA fue una herramienta eficaz para complementar la preparación tradicional, ofreciendo ventajas en términos de interactividad y autonomía en el aprendizaje.

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4. Contenidos

El estudio de investigación contenido en el documento está compuesto por 5 capítulos que reflejan en donde el primer capítulo establece la importancia de incorporar el EVA en el proceso formativo del área de inglés, definiendo el problema de investigación, los objetivos y la justificación. Luego, se desarrollan las preguntas de investigación, enfocándose en cómo el EVA puede mejorar la preparación, diseñar un entorno adecuado y comprender las percepciones estudiantiles. La revisión de literatura aborda teorías como el constructivismo y la teoría sociocultural de Vygotsky, además de estudios previos sobre

TIC y exámenes estandarizados. La metodología empleada es cualitativa, utilizando observaciones, grupos focales y cuestionarios para recopilar datos sobre las experiencias de los estudiantes. Los resultados muestran que el EVA impactó positivamente en la confianza, motivación y compromiso de los estudiantes, mejorando su preparación para el examen. A pesar de los beneficios, se identificaron desafíos como el acceso a la tecnología y la conectividad. Finalmente, se concluye que el EVA fue una herramienta eficaz para la preparación del examen, recomendando su integración en las prácticas educativas y sugiriendo que futuras investigaciones aborden las limitaciones tecnológicas para mejorar la equidad en el acceso a estos recursos. Se presentan las conclusiones que expresan de forma concreta el hallazgo de todo el estudio.

5. Metodología

La metodología de este estudio se basó en un enfoque cualitativo utilizando la Teoría Fundamentada y los principios de la Investigación Acción, lo que permitió una colaboración activa y un ciclo iterativo de planificación, actuación, observación y reflexión. Se recolectaron datos mediante observación en el aula, entrevistas abiertas y grupos focales, proporcionando una comprensión detallada de las percepciones y experiencias de los estudiantes con el Entorno Virtual de Aprendizaje (EVA). La población incluyó 29 estudiantes de 11° grado del Instituto Técnico Jorge Gaitán Durán, seleccionados mediante un muestreo probabilístico simple, todos con características demográficas similares. Los estudiantes utilizaron el EVA como herramienta de preparación para el examen ICFES Saber 11 de inglés, y se validaron los instrumentos de recolección de datos para garantizar su coherencia y relevancia, lo que permitió obtener información significativa sobre la efectividad del EVA.

6. Resultados

La investigación sobre la integración de un Entorno Virtual de Aprendizaje (EVA) en la preparación de estudiantes de 11° grado para el examen ICFES Saber 11 de inglés

reveló que el EVA fue percibido como una herramienta altamente efectiva, aumentando la confianza y el nivel de preparación de los estudiantes. Destacaron su autonomía al gestionar su propio aprendizaje, la oportunidad de aprender de sus errores y la colaboración con compañeros, lo que favoreció un ambiente de aprendizaje compartido. Además, el EVA ofreció acceso a recursos multimedia, facilitó la comprensión del formato del examen de estado y mejoró sus habilidades en la comprensión del idioma inglés. Aunque algunos estudiantes señalaron desventajas como distracciones y falta de conectividad, en general, el EVA demostró ser un recurso valioso para el proceso educativo.

7. Conclusiones

Este estudio investigativo permitió llegar a las siguientes conclusiones. Principalmente, se pudo establecer el (EVA) como un recurso efectivo para la preparación de los estudiantes de 11° grado para el examen ICFES Saber 11 de inglés. Este estudio resalta cómo el EVA mejoró significativamente la confianza y la preparación de los estudiantes mediante la oferta de recursos interactivos y prácticas adaptadas a sus necesidades de aprendizaje. La retroalimentación de los estudiantes refleja una percepción positiva del EVA, destacando su interactividad y flexibilidad para el aprendizaje autodirigido; sin embargo, también se identificaron desafíos relacionados con el acceso a la tecnología y la conectividad, que requieren atención para maximizar su eficacia. Los resultados subrayan que las herramientas tecnológicas bien diseñadas pueden enriquecer la experiencia educativa, facilitando la transición entre métodos de enseñanza tradicionales y las exigencias educativas contemporáneas. En conclusión, esta investigación enfatiza el potencial transformador de los EVA en el ámbito educativo, sugiriendo que las instituciones deben considerar la adopción de tecnologías similares para fomentar la autonomía del aprendizaje y crear entornos educativos más dinámicos y efectivos, al

tiempo que abordan las limitaciones de acceso a la tecnología para garantizar una educación equitativa para todos los estudiantes.

Appendix B

Informed consent for Parents or Guardians

Title: Integration of a Virtual Learning Environment on the perceptions of 11th grade students about their preparation for the ICFES saber 11 text in English.

INFORMED CONSENT PARENTS OR GUARDIANS

In accordance with the provisions of Law 1581 of 2012 and the other regulations that modify and/or expand them, I freely, expressly and informedly authorize: I_____, of legal age, identified with identification document No. _____ of _____ guardian of the student _____, have been informed about the applied research where the participation of my guardian is required in the Rural Educational Institution _____ of _____by of _____.

After having been informed about the conditions of participation in the research, having resolved all concerns and fully understanding the information about this activity, I understand that:

- Participation in this project or the results obtained will not have repercussions or consequences on my client's school activities, evaluations or grades.
- My respondent's participation in the research project will not generate any expenses, nor will he receive any remuneration for it.
- I declare that some of the data could be private or sensitive, so I certify that I am aware of my rights to request the deletion, rectification, update and deletion of my personal data.

- I declare that I have consulted the Information Processing and Personal Data Protection Policies manual through the INFORMATION PROCESSING AND PERSONAL DATA PROTECTION POLICY of the ACTION FUND (https://bit.ly/3DTMUw2).
- In accordance with current regulations on informed consent (Law 1581 of 2012 and Decree 1377 of 2012), and consciously and voluntarily.

I accept: __ Yes ___ No

So that the research is carried out at the _____ Rural Educational Institution of _____ where my client studies.

Place and Date:_____

_____

SIGNATURE

ID No. _____

Appendix C

Observation Rubric

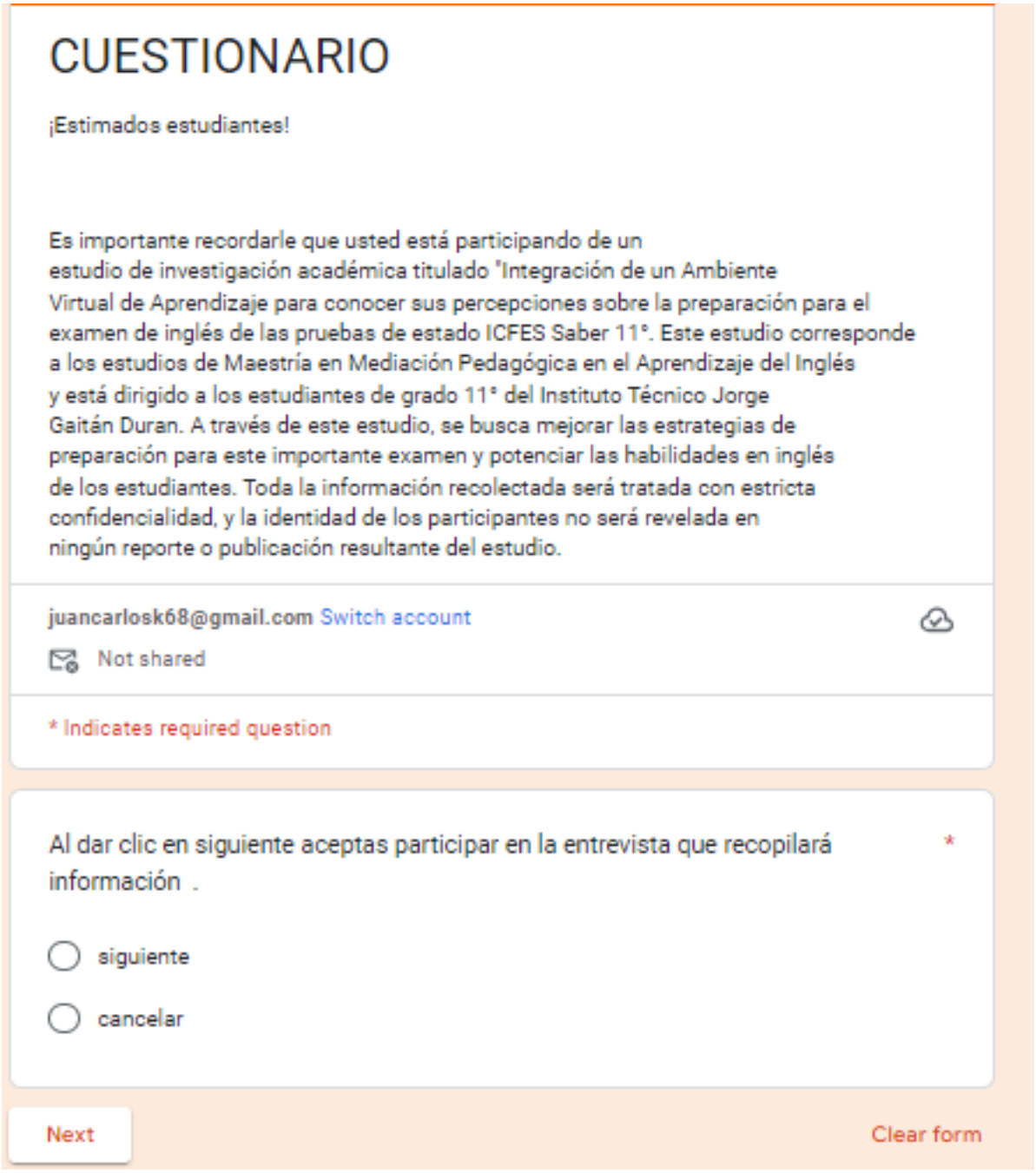
A British Council ESL classroom observation guide: based on Malderez, A. and Bodoczsky , C Mentor Courses (2019).

Lesson plan template			
Teacher:			
Class:			
Date:		Level:	
Class Profile (a brief description of the class)			
Lesson objectives (language/skills/other objectives)			
Schedule adjustment (why are you giving this content at this point in the course)			
Anticipated problems (language/behavior/other things that may affect your lesson)			
Materials			
Stage and time	**Aim**	**Procedure**	**Interaction**

Note. Taken from www.teachingenglish.org.uk

Appendix D

Open-ended Questionnaire



CUESTIONARIO

¡Estimados estudiantes!

Es importante recordarle que usted está participando de un estudio de investigación académica titulado "Integración de un Ambiente Virtual de Aprendizaje para conocer sus percepciones sobre la preparación para el examen de inglés de las pruebas de estado ICFES Saber 11°. Este estudio corresponde a los estudios de Maestría en Mediación Pedagógica en el Aprendizaje del Inglés y está dirigido a los estudiantes de grado 11° del Instituto Técnico Jorge Gaitán Duran. A través de este estudio, se busca mejorar las estrategias de preparación para este importante examen y potenciar las habilidades en inglés de los estudiantes. Toda la información recolectada será tratada con estricta confidencialidad, y la identidad de los participantes no será revelada en ningún reporte o publicación resultante del estudio.

juancarlosk68@gmail.com Switch account

Not shared

* Indicates required question

Al dar clic en siguiente aceptas participar en la entrevista que recopilará información . *

siguiente

cancelar

Next

Clear form

Note. Taken from https://forms.gle/RjcfS2mQkiJ8Z78Q8

Entrevista

El presente cuestionario busca recopilar información detallada sobre las percepciones que tienen los estudiantes del grado 1101, con relación a la eficiencia de un Ambiente virtual de Aprendizaje (AVA), diseñado con el fin de prepararlos para el examen de inglés en la prueba de estado ICFES Saber 11°

Nombre *

Your answer

Un entorno virtual de aprendizaje es una plataforma en línea que permite experiencias de aprendizaje a través de recursos en Internet. por ejemplo: AVA *

¿Crees que un Ambiente Virtual de Aprendizaje (AVA), podría traer beneficios individuales y colectivos para el aprendizaje del inglés y la preparación del examen de estado? En caso positivo, ¿De qué manera?

Your answer

En relación con otras formas de preparación para las pruebas de estado... *

¿Qué tan efectivo encuentras el AVA para ayudarte a sentirte preparado para la prueba de inglés ICFES Saber 11°?

Your answer

¿Cómo ha impactado el acceso a diversos recursos multimedia en el AVA en tu comprensión de las 7 partes del examen de inglés en las pruebas ICFES? *

Your answer

¿En algún momento lograste sentir que puedes controlar los aprendizajes que ofrece el AVA, para prepararte para el examen de inglés en las pruebas ICFES Saber 11°? *

¿De qué manera?

Your answer

¿Qué actividades interactivas del AVA consideras que han sido más efectivas para mejorar tus habilidades en los contenidos de idioma inglés y los conceptos correspondientes a las 7 partes de la prueba de inglés? *

Your answer

¿Consideras que la Interacción con el AVA ha contribuido a una mayor confianza para la presentación del examen de inglés en las pruebas ICFES? *

Your answer

¿De qué manera el AVA ha influenciado tu motivación para estudiar inglés y prepararte para el ICFES Saber 11? *

Your answer

¿Consideras que la interacción con el AVA te genera una sensación de sentirte más preparado para el examen de ingles en las pruebas ICFES Saber 11°? *

Explica__

Your answer

¿Cómo describirías tu experiencia general usando el EVA para prepararte para el examen de inglés de las pruebas de estado ICFES Saber 11? *

Your answer

¿Qué tan probable es que recomiendes a otros estudiantes el AVA como herramienta de preparación para la prueba de inglés del ICFES Saber 11, y por qué? *

Your answer

Back Submit Clear form

Never submit passwords through Google Forms.

Appendix E

Focus Group

Instrumento grupo focal

Presentación: Hola a todos, Gracias por participar en este grupo focal. El objetivo es conocer sus experiencias y percepciones con el AVA. De ese modo se podrá comprender cómo el AVA ha influido en su preparación para el examen de inglés en las pruebas ICFES Saber 11°. Así como identificar sus opiniones sobre la efectividad, beneficios y desventajas comparadas con otras formas de enseñanza.

Es bueno que sepan que sus opiniones son muy importantes para mejorar el AVA para futuros estudios y preparación de otros estudiantes. También tengan presente que aquí no hay respuestas correctas o incorrectas, solo se espera escuchar sus respuestas honestas, para ello, la sesión será grabada, pero su información será confidencial y anónima.

Por último, Si tienen alguna pregunta durante la sesión, siéntanse libres de preguntar. La idea es que se sientan cómodos y que esta sea una conversación amena y productiva.

De antemano, muchas gracias por estar aquí.

Antes de empezar con las preguntas cada uno se va presentar con un nombre y un apellido.

Metodología: Para la aplicación del grupo focal se empleará la herramienta Microsoft Teams, se planificará la fecha y hora de la sesión. Se creará una reunión en Teams, habilitando grabación y transcripción automática, y asegurando un entorno tranquilo.

Llevando a cabo el protocolo establecido, se dará la bienvenida, se explicará el objetivo y se establecerán un orden a la hora de responder las preguntas; indicando que cada pregunta se responderá de izquierda a derecha, saltando una persona por cada pregunta, es decir, si el estudiante 1 responde de primero, la 1ra pregunta, entonces el estudiante 2 que está a la derecha del estudiante 1 responderá de primero la 2da pregunta, luego el estudiante 3 que está a la derecha del estudiante 2, responderá de primero la 3ra pregunta y así sucesivamente.

Se comenzará con una pregunta para romper el hielo y luego se procederá con las preguntas de investigación de manera ordenada, moderando la discusión para asegurar la participación equitativa. Al cierre, se resumirán los puntos clave, se agradecerá a los participantes y se informará sobre los próximos pasos. Posteriormente, se revisará la grabación y la transcripción, se editará para precisión y se analizarán las respuestas para elaborar un informe con los hallazgos y conclusiones.

Pregunta rompe hielo: ¿pueden compartir una actividad o recurso dentro del Entorno Virtual de Aprendizaje que más hayan disfrutado o que les haya resultado interesante y por qué?"

Comencemos con las preguntas.

Categorías	Objetivos
Eficacia percibida del EVE	To design and apply a VLE as a training tool for the English language section of the ICFES State test for 11th-grade students.

Teniendo en cuenta que el AVA es un sitio web con un menú instructivo que contiene una serie de actividades interactiva para lograr el reconocimiento de la estructura y el esquema de preguntas que se presentan en cada una de las 7 partes del examen de inglés.

¿Qué aspectos del AVA encontraste más útiles para familiarizarte con la estructura y contenido del examen de inglés en las pruebas ICFES Saber 11°?

Todos los docentes diseñan sus clases en pro de entrenar a sus estudiantes para las (pruebas de estado), pruebas ICFES.

¿Cómo describirías la efectividad del AVA en comparación con otras formas (métodos), tradicionales de preparación para la prueba de estado?

Categorías	Objetivos
Nivel de preparación percibido	To describe the subjective experiences and perceptions of 11th-grade students regarding their level of preparedness for the ICFES Saber 11 English test after completing the Virtual Learning Environment-based training tool.

¿De qué manera crees que el uso del Ambiente Virtual de Aprendizaje ha mejorado tu preparación para el examen de inglés del ICFES Saber 11°?

¿Cómo describirías tu experiencia con el uso del Entorno Virtual de Aprendizaje como parte de tu proceso de aprendizaje del idioma inglés?

Pregunta adicional: ¿Crees que con tu nivel de preparación podrías contribuir en la mejera de los resultados ICFES en la asignatura del inglés?

Categorías	Objetivos
Factores que contribuyen a la autoconfianza de los alumnos	To determine the factors influencing students' perceptions of the effectiveness, benefits, and drawbacks of the Virtual Learning Environment in enhancing their preparation for the ICFES Saber 11 English test compared to traditional preparation methods.

¿Qué beneficios específicos has experimentado al utilizar el Ambiente Virtual de Aprendizaje en tu preparación para el examen de inglés en las pruebas ICFES?

¿Cuáles son las principales desventajas que has encontrado en el uso del Ambiente Virtual de Aprendizaje como herramienta de entrenamiento en tu preparación para el examen de inglés en las pruebas ICFES?

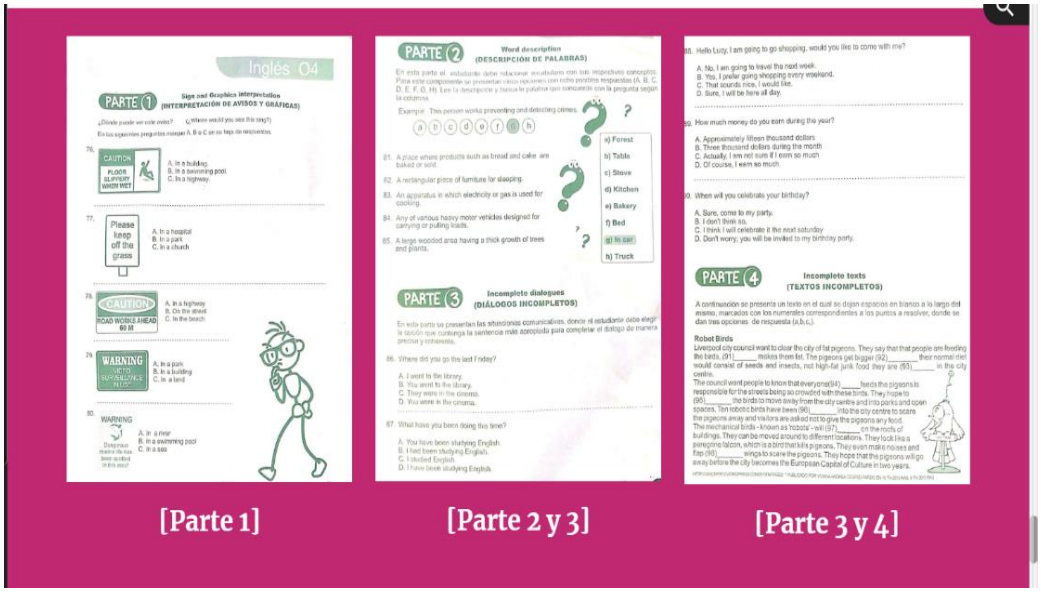
Preguntas adicionales:

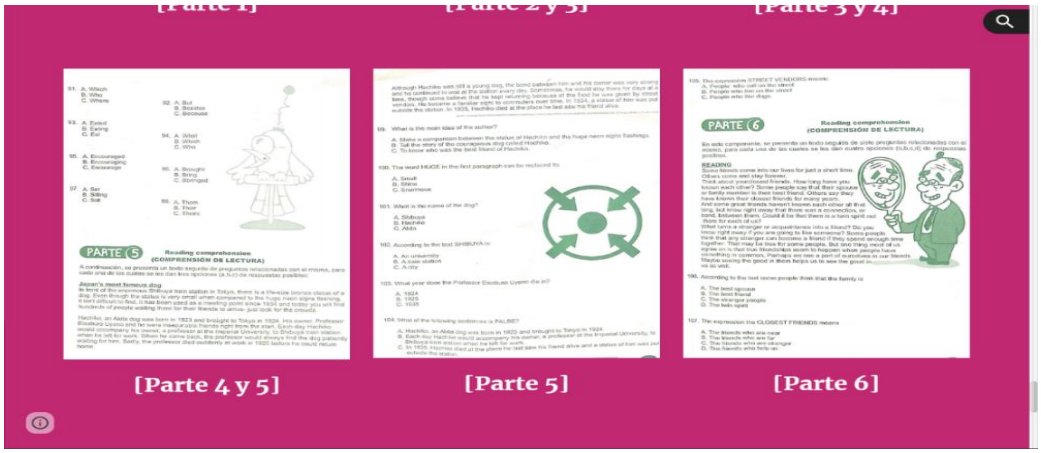
1. Teniendo en cuenta que ya interactuaste con el AVA, podrías mencionar describir… ¿cómo está estructurado el examen de inglés en las pruebas ICFES?
2. ¿Qué aspectos del AVA consideras que podrían mejorarse para hacer la experiencia de preparación aún más efectiva?

Appendix F

VLE Design

Pedagogical intervention - design





Graphic and Sign Interpretation (Part 1): This part focuses on the interpretation and understanding of signs, symbols and visual information commonly found in everyday contexts. Students will develop skills in deciphering meaning conveyed through graphs, charts, and diagrams, which are essential for effective communication and understanding in various settings.

Word Description (Part 2): In this section, students will hone their ability to describe objects, scenes, or concepts using appropriate vocabulary and descriptive language. Emphasis will be placed on expanding vocabulary and articulating detailed descriptions, which are vital skills for effective communication and expression.

Incomplete Dialogues (Part 3): This part revolves around completing and understanding dialogues or conversations, requiring students to demonstrate their understanding of contextual cues and language use. Students will practice filling in missing parts of dialogues to improve their comprehension and communication skills.

Incomplete Texts (Part 4): Students will engage with incomplete passages or texts, where they must fill in gaps or missing information using contextual clues and linguistic knowledge. This exercise strengthens reading comprehension skills and familiarity with different text formats commonly found in academic and professional contexts.

Reading Comprehension (Part 5): This segment focuses specifically on reading comprehension skills, including the ability to understand and analyze written passages, identify main ideas, infer meaning, and draw conclusions. Students will encounter various texts and answer questions to demonstrate their understanding and critical thinking skills.

Reading Comprehension (Part 6): Building on Part 5, this section further refines students' reading comprehension skills with more complex texts and nuanced questions. Students will practice extracting detailed information, making inferences, and synthesizing

information from longer passages, mimicking the demands of higher-level reading assessments.

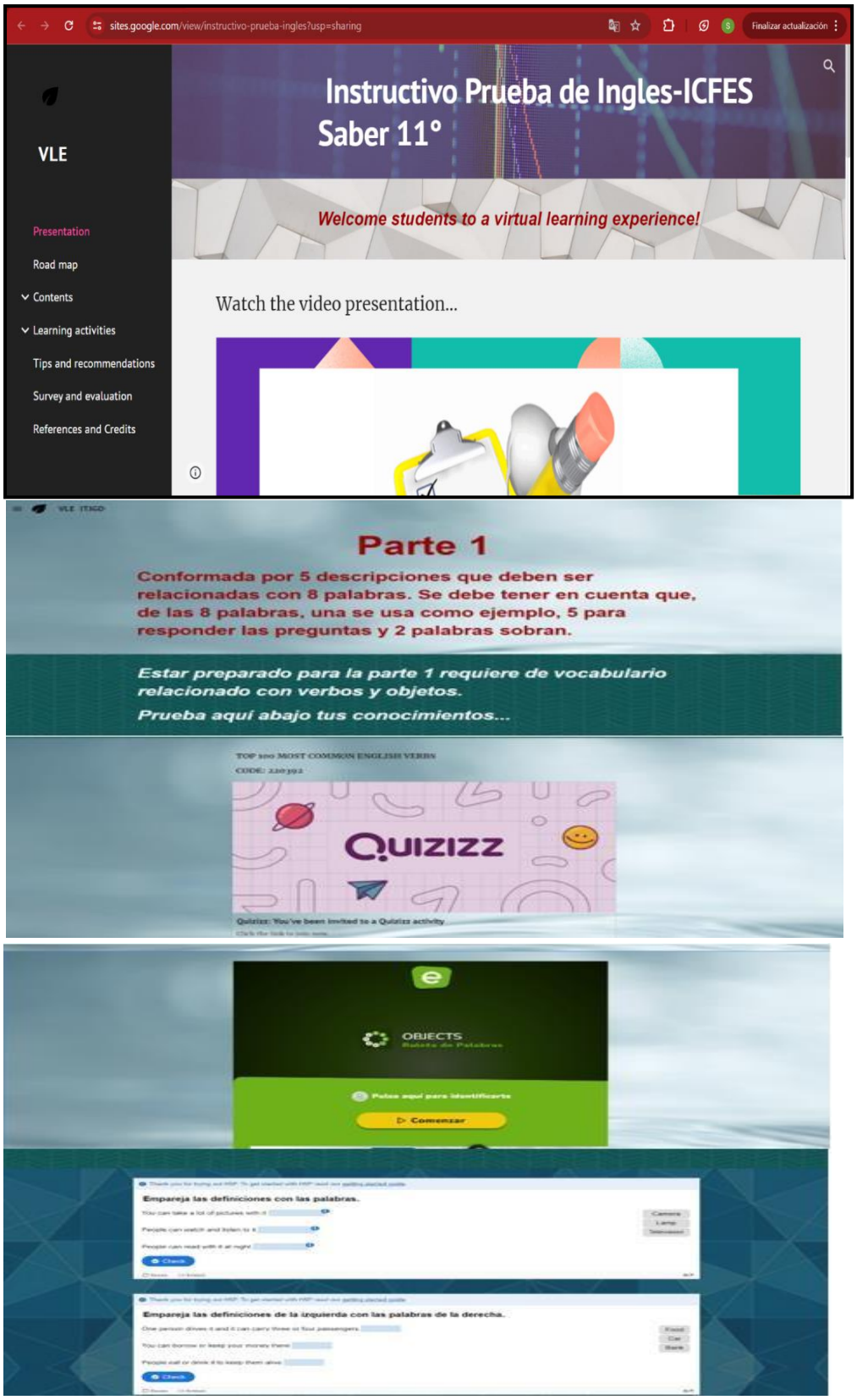
Incomplete Texts (Part 7): Similar to Part 4, this section involves working with incomplete texts or passages, focusing on students' ability to analyze and complete written content effectively. Students will demonstrate competency in understanding and interpreting written information within the context of the ICFES English exam requirements.

Each part of the curriculum will be addressed through a combination of classroom activities, interactive VLE exercises, and specific practice materials. Teachers will guide students to master the specific skills and strategies necessary to excel in each section of the ICFES English exam, ensuring comprehensive preparation and confidence when tackling various exam formats. Through this structured approach, the Jorge Gaitán Durán Technical Institute aims to equip students with the linguistic proficiency and test-taking skills necessary to succeed on the ICFES English assessment.

Educational apps will play a key role in improving interactivity and student engagement during classroom sessions. These applications will allow for immediate feedback and assessment, allowing teachers to assess student understanding and address areas of difficulty in real time. Students will actively participate in answering questions and completing exercises related to ICFES exam formats, reinforcing their understanding and application of English language skills.

Additionally, students will have access to a complete web-hosted VLE. The VLE will serve as a centralized platform where students will be able to access important resources for practice, assessment and self-assessment. It will include practice exercises aligned with ICFES test formats, self-assessment tools, instructional videos, interactive quizzes, study guides, and collaborative forums for peer interaction and discussion.

VLE INDEX



Note. The link to access the VLE [https://sites.google.com/view/instructivo-proba-ingles/road-map .](https://sites.google.com/view/instructivo-proba-ingles/road-map) Own elaboration.

Appendix G

Categorical Analysis Matrix

Categorías	Subcategorías	Evidencia	Instrumento
Student engagement and motivation	Motivation '	'I really like the way you use this through games and dynamics that encourage the student to learn more.	Focus Group
		'Students are motivated and interested in the development of interactive activities' .	Field Diary No. 1
		'All the activities and practical exercises designed in AVA assign points or a position within the game, which produces a competitive environment among students so that they strive to answer the questions correctly. It is easy to see how different emotions emerge when they answer a question well or poorly.'	Field Diary N°3
	Self-efficacy and confidence	'Yes, it would bring benefits, the words that the tool gives us to help us and learn more' “Having	Questionnaire-interview

		confidence to be able to give the best score in English”. 'Yes, because I have more confidence in the answers I give and the vocabulary has also helped me' 'Of course yes, because it fills us with confidence and we learn from each part' 'Yes, because thanks to this I know what I have to study and how to prepare for the English exam.'	
	Persistence	'By bringing in various activities, as a student, you as a learner become more agile in your mind to understand the words, you prepare yourself little by little thanks to these activities and you understand more of what you find difficult.' 'The fact that it allows you to answer again if you made a mistake once helps me a lot because then I can see what my mistake was and	Questionnaire-interview

		choose the correct one.' 'The interaction of vocabulary and resources through platforms' .	
Student autonomy and control	*Autonomy*	'It has improved my preparation for the know 11 exam English test by allowing me to practice in a more dynamic and autonomous way.' 'Students participate and express themselves better and thus feel more comfortable.'	Questionnaire-interview
		'Students independently carried out interactive activities aimed at mastering specific vocabulary and interpreting readings.	Field Diary no. 2.
	Student control	"I can familiarize myself with the tests so that I can do well." 'The VLE has provided me with the right tools and environment to prepare effectively and at my own pace for the ICFES Sabre 11th English exam.'	Questionnaire - Interview
	Interaction and collaboration	'Knowledge is reinforced and	Questionnaire -

		communication in English is developed by interacting with other people.'	Interview
Inclusive and supportive hybrid learning environment	*Access to Resources and Technology Integration*	'During the development of the activities there were connectivity problems because the institution's network is deficient when there are many people connected, so students were asked to use mobile data as much as possible for better functioning of the activities' .	Field Diary No. 1
		'Naturally there were failures with some devices that were left without signal or downloading, but the audiovisual media in the room where the resource was applied were essential so that all students could follow the process unanimously.'	'Naturally there were failures with some devices that were left without signal or downloading, but the audiovisual media in the room where the resource was applied were essential so that all students could follow the process unanimously.'
	Perceived usefulness of AVA	'It has the potential to offer a number of benefits both for us as individuals and for educational	Questionnaire-interview

		systems in general'. 'Yes, because we can learn and know more about the ICFES English tests'.	
	Adaptability	'Even though we are at a distance, we can learn'.	Questionnaire - Interview
Effectiveness of VLE in exam preparation	*Development of knowledge and testing skills*	"It has given me much more thorough preparation, because since she can help us, you know where we are going wrong with interactive games."	Focus group
		'The outcome was very good as the objectives that were at the end of the lesson were achieved.'	Field Diary No. 1
		'The students have gained motivation and confidence, and they express that they have been influenced by the VLE in the presentation of the simulations, which has led them to significantly improve the results obtained in the English section of each simulation.'	Field Diary N°4

		'The interactive simulations were also an opportunity to evaluate and describe the students' experiences in terms of results after developing the VLE resource as a preparation tool.'	
		The interactive materials, videos and activities have allowed me to develop key skills such as listening, reading, writing and speaking.'	Questionnaire - Interview
	Ease of use and understanding.	'It explains very well what the pieces are, they explain what it will have and some questions that can be found in the tests.'	Focus group

Note. Own elaboration (2024).